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On Lifelong Learning

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Learning to Learn

by Erika Andersen

ORGANIZATIONS TODAY ARE IN CONSTANT FLUX. Industries are consolidating, new business models are emerging, new technologies are being developed, and consumer behaviors are evolving. For executives, the ever-increasing pace of change can be especially demanding. It forces them to understand and quickly respond to big shifts in the way companies operate and how work must get done. In the words of Arie de Geus, a business theorist, "The ability to learn faster than your competitors may be the only sustainable competitive advantage."

I'm not talking about relaxed armchair or even structured classroom learning. I'm talking about resisting the bias against doing new things, scanning the horizon for growth opportunities, and pushing yourself to acquire radically different capabilities—while still performing your job. That requires a willingness to experiment and become a novice again and again: an extremely discomforting notion for most of us.

Over decades of coaching and consulting to thousands of executives in a variety of industries, however, my colleagues and I have come across people who succeed at this kind of learning. We've identified four attributes they have in spades: aspiration, self-awareness, curiosity, and vulnerability. They truly want to understand and master new skills; they see themselves very clearly; they constantly think of and ask good questions; and they tolerate their own mistakes as they move up the learning curve.

Of course, these things come more naturally to some people than to others. But, drawing on research in psychology and management as well as our work with clients, we have identified some fairly simple mental tools anyone can develop to boost all four attributes—even those that are often considered fixed (aspiration, curiosity, and vulnerability).

Aspiration

It's easy to see aspiration as either there or not: You want to learn a new skill or you don't; you have ambition and motivation or you lack them. But great learners can raise their aspiration level—and that's key, because everyone is guilty of sometimes resisting development that is critical to success.

Think about the last time your company adopted a new approach—overhauled a reporting system, replaced a CRM platform, revamped the supply chain. Were you eager to go along? I doubt it. Your initial response was probably to justify

not learning. (*It will take too long. The old way works just fine for me. I bet it's just a flash in the pan.*) When confronted with new learning, this is often our first roadblock: We focus on the negative and unconsciously reinforce our lack of aspiration.

When we *do* want to learn something, we focus on the positive — what we'll gain from learning it—and envision a happy future in which we're reaping those rewards. That propels us into action. Researchers have found that shifting your focus from challenges to benefits is a good way to increase your aspiration to do initially unappealing things. For example, when Nicole Detling, a psychologist at the University of Utah, encouraged aerialists and speed skaters to picture themselves benefiting from a particular skill, they were much more motivated to practice it.

A few years ago I coached a CMO who was hesitant to learn about big data. Even though most of his peers were becoming converts, he'd convinced himself that he didn't have the time to get into it and that it wouldn't be that important to his industry. I finally realized that this was an aspiration problem and encouraged him to think of ways that getting up to speed on data-driven marketing could help him personally. He acknowledged that it would be useful to know more about how various segments of his customer base were responding to his team's online advertising and in-store marketing campaigns. I then invited him to imagine the situation he'd be in a year later if he was getting that data. He started to show some excitement,

saying, “We would be testing different approaches simultaneously, both in-store and online; we’d have good, solid information about which ones were working and for whom; and we could save a lot of time and money by jettisoning the less effective approaches faster.” I could almost feel his aspiration rising. Within a few months he’d hired a data analytics expert, made a point of learning from her on a daily basis, and begun to rethink key campaigns in light of his new perspective and skills.

Idea in Brief

The ever-increasing pace of change in today’s organizations requires that executives understand and then quickly respond to constant shifts in how their businesses operate and how work must get done. That means you must resist your innate biases against doing new things in new ways, scan the horizon for growth opportunities, and push yourself to acquire drastically different capabilities—while still doing your existing job. To succeed, you must be willing to experiment and become a novice over and over again, which for most of us is an extremely discomforting proposition.

Over decades of work with managers, the author has found that people who do succeed at this kind of learning have four well-developed attributes: aspiration, self-awareness, curiosity, and vulnerability. They have a deep desire to understand and master new skills; they see themselves very clearly; they’re constantly thinking of and asking good questions; and they tolerate their own mistakes as they move up the curve. Andersen has identified some fairly simple mental strategies that anyone can use to boost these attributes.

Self-Awareness

Over the past decade or so, most leaders have grown familiar with the concept of self-awareness. They understand that they need to solicit feedback and recognize how others see them. But when it comes to the need for learning, our assessments of ourselves—what we know and don't know, skills we have and don't have—can still be woefully inaccurate. In one study conducted by David Dunning, a Cornell University psychologist, 94% of college professors reported that they were doing "above average work." Clearly, almost half were wrong—many extremely so—and their self-deception surely diminished any appetite for development. Only 6% of respondents saw themselves as having a lot to learn about being an effective teacher.

In my work I've found that the people who evaluate themselves most accurately start the process inside their own heads: They accept that their perspective is often biased or flawed and then strive for greater objectivity, which leaves them much more open to hearing and acting on others' opinions. The trick is to pay attention to how you talk to yourself about yourself and then question the validity of that "self-talk."

Let's say your boss has told you that your team isn't strong enough and that you need to get better at assessing and developing talent. Your initial reaction might be something like *What? She's wrong. My team is strong.* Most of us respond defensively to that sort of criticism. But as soon as you recognize what you're thinking, ask yourself, *Is that accurate? What facts do*

I have to support it? In the process of reflection you may discover that you're wrong and your boss is right, or that the truth lies somewhere in between—you cover for some of your reports by doing things yourself, and one of them is inconsistent in meeting deadlines; however, two others are stars. Your inner voice is most useful when it reports the facts of a situation in this balanced way. It should serve as a "fair witness" so that you're open to seeing the areas in which you could improve and how to do so.

One CEO I know was convinced that he was a great manager and leader. He did have tremendous industry knowledge and great instincts about growing his business, and his board acknowledged those strengths. But he listened only to people who affirmed his view of himself and dismissed input about shortcomings; his team didn't feel engaged or inspired. When he finally started to question his assumptions (*Is everyone on my team focused and productive? If not, is there something I could be doing differently?*), he became much more aware of his developmental needs and open to feedback. He realized that it wasn't enough to have strategic insights; he had to share them with his reports and invite discussion, and then set clear priorities—backed by quarterly team and individual goals, regular progress checks, and troubleshooting sessions.

Changing your inner narrative

Unsupportive self-talk	Supportive self-talk

I don't need to learn this.	What would my future look like if I did?
I'm already fine at this.	Am I really? How do I compare with my peers?
This is boring.	I wonder why others find it interesting.
I'm terrible at this.	I'm making beginner mistakes, but I'll get better.

Curiosity

Kids are relentless in their urge to learn and master. As John Medina writes in *Brain Rules*, "This need for explanation is so powerfully stitched into their experience that some scientists describe it as a drive, just as hunger and thirst and sex are drives." Curiosity is what makes us try something until we can do it, or think about something until we understand it. Great learners retain this childhood drive, or regain it through another application of self-talk. Instead of focusing on and reinforcing initial disinterest in a new subject, they learn to ask themselves "curious questions" about it and follow those questions up with actions. Carol Sansone, a psychology researcher, has found, for example, that people can increase their willingness to tackle necessary tasks by thinking about how they could do the work differently to make it more interesting. In other words, they change their self-talk from *This is boring* to *I wonder if I could … ?*

You can employ the same strategy in your working life by noticing the language you use in thinking about things that already interest you—*How … ? Why … ? I wonder … ?*—and

drawing on it when you need to become curious. Then take just one step to answer a question you've asked yourself: Read an article, query an expert, find a teacher, join a group—whatever feels easiest.

I recently worked with a corporate lawyer whose firm had offered her a bigger job that required knowledge of employment law—an area she regarded as "the single most boring aspect of the legal profession." Rather than trying to persuade her otherwise, I asked her what she was curious about and why. "Swing dancing," she said. "I'm fascinated by the history of it. I wonder how it developed, and whether it was a response to the Depression—it's such a happy art form. I watch great dancers and think about why they do certain things."

I explained that her "curious language" could be applied to employment law. "I wonder how anyone could find it interesting?" she said jokingly. I told her that was actually an OK place to start. She began thinking out loud about possible answers ("Maybe some lawyers see it as a way to protect both their employees and their companies …") and then proposed a few other curious questions ("How might knowing more about this make me a better lawyer?").

Soon she was intrigued enough to connect with a colleague who was experienced in employment law. She asked him what he found interesting about it and how he had acquired his knowledge, and his answers prompted other questions. Over the

following months she learned what she needed to know for that aspect of her new role.

The next time you're asked to learn something at the office, or sense that you should because colleagues are doing so, encourage yourself to ask and answer a few curious questions about it—*Why are others so excited about this? How might this make my job easier?*—and then seek out the answers. You'll need to find just one thing about a "boring" topic that sparks your curiosity.

Vulnerability

Once we become good or even excellent at some things, we rarely want to go back to being *not* good at other things. Yes, we're now taught to embrace experimentation and "fast failure" at work. But we're also taught to play to our strengths. So the idea of being bad at something for weeks or months; feeling awkward and slow; having to ask "dumb," "I-don't-know-what-you're-talking-about" questions; and needing step-by-step guidance again and again is extremely scary. Great learners allow themselves to be vulnerable enough to accept that beginner state. In fact, they become reasonably comfortable in it—by managing their self-talk.

Generally, when we're trying something new and doing badly at it, we think terrible thoughts: *I hate this. I'm such an idiot. I'll never get this right. This is so frustrating!* That static in our brains leaves little bandwidth for learning. The ideal mindset for a

beginner is both vulnerable and balanced: *I'm going to be bad at this to start with, because I've never done it before. AND I know I can learn to do it over time.* In fact, the researchers Robert Wood and Albert Bandura found in the late 1980s that when people are encouraged to expect mistakes and learn from them early in the process of acquiring new skills, the result is "heightened interest, persistence, and better performance."

I know a senior sales manager from the United States who was recently tapped to run the Asia-Pacific region for his company. He was having a hard time acclimating to living overseas and working with colleagues from other cultures, and he responded by leaning on his sales expertise rather than acknowledging his beginner status in the new environment. I helped him recognize his resistance to being a cultural novice, and he was able to shift his self-talk from *This is so uncomfortable—I'll just focus on what I already know* to *I have a lot to learn about Asian cultures. I'm a quick study, so I'll be able to pick it up.* He told me it was an immediate relief: Simply acknowledging his novice status made him feel less foolish and more relaxed. He started asking the necessary questions, and soon he was seen as open, interested, and beginning to understand his new environment.

The ability to acquire new skills and knowledge quickly and continually is crucial to success in a world of rapid change. If you don't currently have the aspiration, self-awareness, curiosity,

and vulnerability to be an effective learner, these simple tools can help you get there.

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Making Yourself Indispensable

by John H. Zenger, Joseph R. Folkman, and Scott K. Edinger

A MANAGER WE'LL call Tom was a midlevel sales executive at a *Fortune* 500 company. After a dozen or so years there, he was thriving—he made his numbers, he was well liked, he got consistently positive reviews. He applied for a promotion that would put him in charge of a high-profile worldwide product-alignment initiative, confident that he was the top candidate and that this was the logical next move for him, a seemingly perfect fit for his skills and ambitions. His track record was solid. He'd made no stupid mistakes or career-limiting moves, and he'd had no run-ins with upper management. He was stunned, then, when a colleague with less experience got the job. What was the matter?

As far as Tom could tell, nothing. Everyone was happy with his work, his manager assured him, and a recent 360-degree assessment confirmed her view. Tom was at or above the norm in every area, strong not only in delivering results but also in problem solving, strategic thinking, and inspiring others to top

performance. “No need to reinvent yourself,” she said. “Just keep doing what you’re doing. Go with your strengths.”

But how? Tom was at a loss. Should he think more strategically? Become even more inspiring? Practice problem solving more intently?

It’s pretty easy and straightforward to improve on a weakness; you can get steady, measurable results through linear development—that is, by learning and practicing basic techniques. But the data from our decades of work with tens of thousands of executives all over the world has shown us that developing strengths is very different. Doing more of what you already do well yields only incremental improvement. To get appreciably better at it, you have to work on complementary skills—what we call *nonlinear* development. This has long been familiar to athletes as cross-training. A novice runner, for example, benefits from doing stretching exercises and running a few times a week, gradually increasing mileage to build up endurance and muscle memory. But an experienced marathoner won’t get significantly faster merely by running ever longer distances. To reach the next level, he needs to supplement that regimen by building up complementary skills through weight training, swimming, bicycling, interval training, yoga, and the like.

So it is with leadership competencies. To move from good to much better, you need to engage in the business equivalent of cross-training. If you’re technically adept, for instance, delving

even more deeply into technical manuals won't get you nearly as far as honing a complementary skill such as communication, which will make your expertise more apparent and accessible to your coworkers.

In this article we provide a simple guide to becoming a far more effective leader. We will see how Tom identified his strengths, decided which one to focus on and which complementary skill to develop, and what the results were. The process is straightforward, but complements are not always obvious. So first we'll take a closer look at the leadership equivalent of cross-training.

The Interaction Effect

In cross-training, the combination of two activities produces an improvement—an *interaction effect*—substantially greater than either one can produce on its own. There's nothing mysterious here. Combining diet with exercise, for example, has long been known to be substantially more effective in losing weight than either diet or exercise alone.

Idea in Brief

Good leaders can become exceptional by developing just a few of their strengths to the highest level—but not by merely doing more of the same.

Instead, they need to engage in the business equivalent of cross-training—that is, to enhance complementary skills that will enable them to make fuller use of their strengths.

For example, technical skills can become more effective when communication skills improve, making a leader's expertise more apparent and more accessible.

Once a few of their strengths have reached the level of outstanding, leaders become indispensable to their organizations despite the weaknesses they may have.

In our previous research we found 16 differentiating leadership competencies that correlate strongly with positive business outcomes such as increased profitability, employee engagement, revenue, and customer satisfaction. Among those 16, we wondered, could we find pairs that would produce significant interaction effects?

We searched through our database of more than a quarter million 360-degree surveys of some 30,000 developing leaders for pairings that resulted in far higher scores on overall leadership effectiveness than either attribute did on its own. The results were unambiguous. Take, for example, the competencies "focuses on results" and "builds relationships." Only 14% of leaders who were reasonably strong (that is, scored in the 75th percentile) in focusing on results but less so in building relationships reached the extraordinary leadership level: the 90th percentile in overall leadership effectiveness. Similarly, only 12% of those who were reasonably strong in building relationships but less so in focusing on results reached that level. But when an individual performed well in both categories, something dramatic happened: Fully 72% of those in the 75th

percentile in both categories reached the 90th percentile in overall leadership effectiveness.

We measured the degree of correlation between overall leadership effectiveness and all possible pairings of our 16 differentiating competencies to learn which pairings were the most powerful. We also matched our 16 competencies with other leadership skills and measured how those pairs correlated with overall leadership effectiveness. We discovered that each of the 16 has up to a dozen associated behaviors—which we call *competency companions*—that were highly correlated with leadership excellence when combined with the differentiating competency. (For a complete list of the competencies and their companions, see the exhibit "What skills will magnify my strengths?")

What skills will magnify my strengths?

Our research shows that 16 leadership competencies correlate strongly with positive business outcomes. Each of them has up to a dozen "competency companions" whose development will strengthen the core skill.

Character

Displays honesty and integrity

- Shows concern and consideration for others
- Is trustworthy
- Demonstrates optimism
- Is assertive
- Inspires and motivates others
- Deals well with ambiguity
- Is decisive
- Focuses on results

Personal capability

Exhibits technical/professional expertise

- Solves problems and analyzes issues
- Builds relationships and networks
- Communicates powerfully and broadly
- Pursues excellence
- Takes initiative
- Develops others
- Displays honesty and integrity
- Acts in the team's best interest

Solves problems and analyzes issues

- Takes initiative
- Is organized and good at planning
- Is decisive
- Innovates
- Wants to tackle challenges
- Develops strategic perspective
- Acts independently
- Has technical expertise
- Communicates powerfully and broadly

Innovates

- Is willing to take risks and challenge the status quo
- Supports others in risk-taking
- Solves problems and analyzes issues
- Champions change
- Learns quickly from success and failure
- Develops strategic perspective
- Takes initiative

Practices self-development

- Listens
- Is open to others' ideas
- Respects others
- Displays honesty and integrity
- Inspires and motivates others
- Provides effective feedback and development
- Takes initiative
- Is willing to take risks and challenge the status quo

Getting results

Focuses on results

- Is organized and good at planning
- Displays honesty and integrity
- Anticipates problems
- Sees desired results clearly
- Provides effective feedback and development
- Establishes stretch goals
- Is personally accountable
- Is quick to act
- Provides rewards and recognition
- Creates a high-performance team
- Marshals adequate resources
- Innovates

Establishes stretch goals

- Inspires and motivates others
- Is willing to take risks and challenge the status quo
- Gains the support of others
- Develops strategic perspective
- Champions change
- Is decisive
- Has technical and business expertise
- Focuses on results

Takes initiative

- Anticipates problems
- Emphasizes speed
- Is organized and good at planning
- Champions others
- Deals well with ambiguity
- Follows through
- Inspires and motivates others
- Establishes stretch goals
- Displays honesty and integrity

Interpersonal skills

Communicates powerfully and broadly

- Inspires and motivates others
- Develops strategic perspective
- Establishes stretch goals
- Deals effectively with the outside world
- Is trustworthy
- Involves others
- Translates messages for clarity
- Solves problems and analyzes issues
- Takes initiative
- Innovates
- Develops others

Inspires and motivates others

- Connects emotionally with others
- Establishes stretch goals
- Exhibits clear vision and direction
- Communicates powerfully and broadly
- Develops others
- Collaborates and fosters teamwork
- Nurtures innovation
- Takes initiative
- Champions change
- Is a strong role model

Builds relationships

- Collaborates and fosters teamwork
- Displays honesty and integrity
- Develops others
- Listens
- Communicates powerfully and broadly
- Provides rewards and recognition
- Practices inclusion and values diversity
- Demonstrates optimism
- Practices self-development

Develops others

- Practices self-development
- Shows concern and consideration for others
- Is motivated by the success of others
- Practices inclusion and values diversity

- Develops strategic perspective
- Provides effective feedback and development
- Inspires and motivates others
- Innovates
- Provides rewards and recognition
- Displays honesty and integrity

Collaborates and fosters teamwork

- Is trustworthy
- Builds relationships and networks
- Practices inclusion and values diversity
- Develops strategic perspective
- Establishes stretch goals
- Communicates powerfully and broadly
- Displays honesty and integrity
- Adapts to change
- Inspires and motivates others
- Develops others

Leading change

Develops strategic perspective

- Focuses on customers
- Innovates
- Solves problems and analyzes issues
- Communicates powerfully and broadly
- Establishes stretch goals
- Demonstrates business acumen
- Champions change
- Inspires and motivates others

Champions change

- Inspires and motivates others
- Builds relationships and networks
- Develops others
- Provides rewards and recognition
- Practices inclusion and values diversity
- Innovates
- Focuses on results
- Is willing to take risks and challenge the status quo

- Develops strategic perspective

Connects the group to the outside world

- Develops broad perspective
- Develops strategic perspective
- Inspires and motivates others
- Has strong interpersonal skills
- Takes initiative
- Gathers and assimilates information
- Champions change
- Communicates powerfully and broadly

Consider the main competency “displays honesty and integrity.” How would a leader go about improving a relative strength in this area? By being more honest? (We’ve heard that answer to the question many times.) That’s not particularly useful advice. If an executive were weak in this area, we could recommend various ways to improve: Behave more consistently, avoid saying one thing and doing another, follow through on stated commitments, and so on. But a leader with high integrity is most likely already doing those things.

Our competency-companion research suggests a practical path forward. For example, assertiveness is among the behaviors that when paired with honesty and integrity correlate most strongly with high levels of overall leadership effectiveness. We don’t mean to imply a causal relationship here: Assertiveness doesn’t make someone honest, and integrity doesn’t produce assertiveness. But if a highly principled leader learned to become more assertive, he might be more likely to speak up and act with

the courage of his convictions, thus applying his strength more widely or frequently to become a more effective leader.

Our data suggest other ways in which a competency companion can reinforce a leadership strength. It might make the strength more apparent, as in the case of the technically strong leader who improves her ability to communicate. Or skills learned in developing the competency companion might be profitably applied to the main competency. A leader strong in innovativeness, for instance, might learn how to champion change, thus encouraging his team to achieve results in new and more creative ways.

Building Strengths, Step by Step

As a practical matter, cross-training for leadership skills is clear-cut: (1) Identify your strengths. (2) Choose a strength to focus on according to its importance to the organization and how passionately you feel about it. (3) Select a complementary behavior you'd like to enhance. (4) Develop it in a linear way.

Identify your strengths

Strengths can arguably be identified in a variety of ways. But we contend that in the context of effective leadership, your view of your own (or even some perfectly objective view, supposing one could be had) is less important than other people's, because leadership is all about your effect on others. That's why we start with a 360—as Tom did.

Ideally, you should go about this in a psychometrically valid way, through a formal process in which you and your direct reports, peers, and bosses anonymously complete questionnaires ranking your leadership attributes on a quantitative scale. You and they should also answer some qualitative, open-ended questions concerning your strengths, your fatal flaws (if any), and the relative importance of those attributes to the company. By "fatal flaws," we mean flaws so critical that they can overpower any strengths you have or may develop—flaws that can derail your career.

Not every organization is able or willing to conduct 360s for everyone. So if that's not feasible, you may be able to solicit qualitative data from your colleagues if—and this is a big caveat—you can make them feel comfortable enough to be honest in their feedback. You could create your own feedback form and ask people to return it anonymously. (See the sidebar "An Informal 360" for a suggested set of questions.) We have also seen earnest one-on-one conversations work for this purpose; if nothing else, they show your coworkers that you are genuinely interested in self-improvement. (Nevertheless, it's unlikely that anyone will tell you directly if you have fatal flaws.)

An Informal 360

BEFORE YOU CAN BUILD ON YOUR STRENGTHS, you need an objective view of what they are. Ideally, this comes from a formal, confidential 360-degree evaluation. But if that's not possible, a direct approach can

work. Try simply asking your team members, colleagues, and boss these simple questions, either in person or in writing.

- What leadership skills do you think are strengths for me?
- Is there anything I do that might be considered a fatal flaw—that could derail my career or lead me to fail in my current job if it's not addressed?
- What leadership ability, if outstanding, would have the most significant impact on the productivity or effectiveness of the organization?
- What leadership abilities of mine have the most significant impact on you?

Do your best to exhibit receptiveness and to create a feeling of safety (especially for direct reports). Make it clear that you're seeking self-improvement. Tell your colleagues explicitly that you are open to negative feedback and that you will absorb it professionally and appropriately—and without retribution. Of course, you need to follow through on this promise, or the entire process will fail.

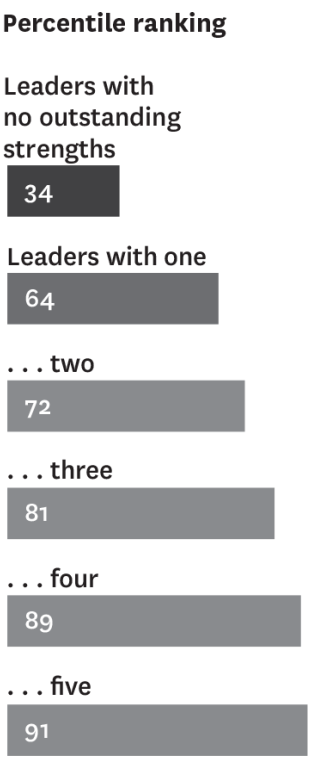
In interpreting the results, people commonly focus first on their lowest scores. But unless those are extremely low (in the 10th percentile), that's a mistake. (We have found that 20% of executives do typically discover such a critical problem in their 360s; if you're among them, you must fix the flaw, which you can do in a linear way.)

What makes leaders indispensable to their organizations, our data unmistakably show, is not being good at many things but being uniquely outstanding at a few things. Such strengths allow a leader's inevitable weaknesses to be overlooked. The

executives in our database who exhibited no profound (that is, in the 90th percentile) strengths scored only in the 34th percentile, on average, in overall leadership effectiveness. But if they had just one outstanding strength, their overall leadership effectiveness score rose to the 64th percentile, on average. In other words, the difference between being in the bottom third of leaders and being almost in the top third is a single extraordinary strength. Two profound strengths put leaders close to the top quartile, three put them in the top quintile, and four put them nearly in the top decile. (See the exhibit "What difference can a single strength make?")

What difference can a single strength make?

Raising just one competency to the level of outstanding can up your overall leadership effectiveness ranking from the bottom third to almost the top third.



In this context, a look at Tom's 360 results sheds light on the question of why he was passed over for a plum assignment. Tom had no critical flaws, but he hadn't yet demonstrated any outstanding strengths either. With no strengths above the 70th percentile, he didn't score "good," let alone "outstanding," in overall leadership ability. Anyone in the organization with a single notable strength was likely to outpace him for promotion opportunities. But if Tom could lift just a few of his relative strengths from the 70th to the 80th and then the 90th percentile, his overall leadership effectiveness might go from above average to good to exceptional. Clearly, those strengths merited a closer examination.

Like many people, though, Tom was initially galvanized by the low bars on his chart, which evoked a mixture of guilt and denial. His relatively low score on building relationships called up uncomfortable memories of high school—something he didn't mention as he looked over the results with his boss. But he did say that he couldn't believe he wasn't scored higher on innovativeness, and he started to tick off initiatives he felt he deserved credit for. Maybe he was innovative, and maybe he wasn't. It's common for your self-assessment to vary sharply from everyone else's assessment of you. But remember that it's others' opinions that matter.

When Tom did turn his attention to his strengths, he wasn't surprised to see that he scored well in focusing on results and in solving problems and analyzing issues. Less obvious to him, and perhaps more gratifying, were his relatively high marks in developing strategic perspective and inspiring and motivating others. Now he could move on to the next step.

Choose a strength to focus on

Choices between good and bad are easy. But choices between good and good cause us to deliberate and second-guess. It may not matter which competency Tom selected, since enhancing any one of them would markedly improve his leadership effectiveness. Nevertheless, we recommend that developing leaders focus on a competency that matters to the organization and about which they feel some passion, because a strength you feel passionate about that is not important to your organization

is essentially a hobby, and a strength the organization needs that you don't feel passionate about is just a chore.

You can use your colleagues' importance ratings from the 360 assessment to get a somewhat objective view of organizational needs. But the prospect of following his passions alarmed Tom, who didn't know how to begin. Answering a series of questions made the notion more concrete. For each of the 16 competencies, he ran down the following list:

- Do I look for ways to enhance this skill?
- Do I look for new ways to use it?
- Am I energized, not exhausted, when I use it?
- Do I pursue projects in which I can apply this strength?
- Can I imagine devoting time to improving it?
- Would I enjoy getting better at this skill?

Counting his "yes" answers gave Tom a solid way to quantify his passions. A simple worksheet showed him how his skills, his passions, and the organization's needs dovetailed (see the exhibit "Narrowing down the options"). When Tom checked off his top five competencies, his five passions, and the organization's top priorities, he could see a clear convergence. He decided to focus on the strength that, as it happens, we have found to be most universally associated with extraordinary leadership: "inspires and motivates others."

Narrowing down the options

The strength you focus on should be both important to the organization and important to you. A simple worksheet (like Tom's, below) can help you see where your strengths and interests and the needs of your organization converge. Choose five competencies in each of the three categories.

	Your competencies	Your passions	Organizational needs	Total
1. Displays honesty and integrity				
2. Exhibits technical/professional expertise	X			1
3. Solves problems and analyzes issues	X			1
4. Innovates		X	X	2
5. Practices self-development				
6. Focuses on results	X			1
7. Establishes stretch goals				
8. Takes initiative		X		1
9. Communicates powerfully and broadly			X	1
10. Inspires and motivates others	X	X	X	(3)
11. Builds relationships			X	1
12. Develops others		X		1
13. Collaborates and fosters teamwork		X		1
14. Develops strategic perspective	X		X	2
15. Champions change				
16. Connects the group to the outside world				

Select a complementary behavior

People who excel at motivating others are good at persuading them to take action and to go the extra mile. They effectively exercise power to influence key decisions for the benefit of the organization. They know how to motivate different people in different ways. So it was not surprising that Tom already did those things pretty well. He scanned the list of competency companions:

- Connects emotionally with others
- Establishes stretch goals
- Exhibits clear vision and direction
- Communicates powerfully and broadly
- Develops others
- Collaborates and fosters teamwork
- Nurtures innovation
- Takes initiative
- Champions change
- Is a strong role model

You should choose a companion behavior that, like a good strength, is important to the organization and makes you feel enthusiastic about tackling it. But at this point it's also constructive to consider your lower scores. In talking these points over with his manager, Tom decided to work on his

communication skills, which didn't score particularly high but were high enough that raising them a little could make a significant difference.

Develop it in a linear way

Having settled on a competency companion, Tom could now work at directly improving his basic skills in that area. Strong communicators speak concisely and deliver effective presentations. Their instructions are clear. They write well. They can explain new concepts clearly. They help people understand how their work contributes to broader business objectives. They can translate terms used by people in different functions. Tom saw lots of room for improvement here: No one would ever call him concise; he didn't always finish sentences he'd started; and he found writing a challenge.

We would have recommended that he look for as many opportunities as possible, both inside and outside work, to improve his communication. He could take a course in business writing. He could practice with friends and family, in his church or his community. He could volunteer to make presentations to senior management or ask colleagues to critique some of his memos and e-mails. He might volunteer to help high school students write college application essays. He could videotape himself making speeches or join a local Toastmasters club.

Tom decided to seek the advice of a colleague whose communication skills he admired. The colleague suggested (among other things) that because writing was not a strong

point, Tom should practice communicating more in person or over the phone. This turned out to be challenging: Tom found that before he could even begin, he had to change his approach to e-mail, because he was in the habit of constantly checking and replying to it throughout the day. He couldn't always substitute the phone, because he couldn't make calls while he was in a meeting or talking to someone else. He started to set aside specific times of the day for e-mail so that he could reply by phone or in person—a small change that had unexpected consequences. Instead of being interrupted and distracted at random moments throughout the day (and evening), his staffers had concentrated, direct interactions with him. They found these more efficient and effective, even though they could no longer choose when (or whether) to reply to Tom's cryptic e-mails. Tom found that he connected better with people he talked to, both because his attention wasn't divided between them and his BlackBerry and because he could read their tone of voice and body language. As a result, he absorbed more information, and his colleagues felt he was more attentive to their views.

Tom also started to pay more attention not just to how he was communicating but to what he was saying. His colleague suggested that Tom start to keep track of how often he issued instructions versus how often he asked questions. Tom also took note of how much of what he said was criticism (constructive or otherwise) and how much was encouragement. Increasing the

proportion of questions and encouragement had an immediate effect: His team began to understand him more quickly, so he didn't have to repeat himself as often. Several team members actually thanked him for allowing them to express their points of view.

Like Tom, you should expect to see some concrete evidence of improvement within 30 to 60 days. If you don't, what you're doing is not working. That said, complementary behaviors improve steadily with practice, and Tom's progress is typical: Fifteen months later, on taking another 360, he found he'd moved into the 82nd percentile in his ability to inspire. He wasn't extraordinary yet, but he was getting close. Our advice would be to keep at it—to improve another competency companion or two until he reaches the 90th percentile and becomes truly exceptional at inspiring others. Then he can start the entire process again with another strength and its complements, and another—at which point he will be making a uniquely valuable contribution to his company.

Can You Overdo It?

Everyone knows someone who is too assertive, too technically oriented, too focused on driving for results. Many people cite examples like these to argue against the wisdom of improving your leadership effectiveness by strengthening your strengths. Our research does in fact show a point where balance becomes important. The data suggest that the difference between having

four profound strengths and having five is a gain of merely 2 percentage points in overall leadership effectiveness. Thus leaders who are already exceptional should consider one more variable.

You will note in the exhibit "What skills will magnify my strengths?" that the 16 differentiating competencies fall into five broader categories: character, personal capability, getting results, interpersonal skills, and leading change. People who have many strengths should consider how they are distributed across those categories and focus improvement efforts on an underrepresented one.

But we cannot think of a less constructive approach to improving your leadership effectiveness than treating your strengths as weaknesses. Have you ever known anyone who had too much integrity? Was too effective a communicator? Was just too inspiring? Developing competency companions works precisely because, rather than simply doing more of the same, you are enhancing how you already behave with new ways of working and interacting that will make that behavior more effective.

Focusing on your strengths is hardly a new idea. Forty-four years ago Peter Drucker made the business case eloquently in *The Effective Executive:* "Unless … an executive looks for strength and works at making strength productive, he will only get the

impact of what a man cannot do, of his lacks, his weaknesses, his impediments to performance and effectiveness. To staff from what there is not and to focus on weakness is wasteful—a misuse, if not abuse, of the human resource." Since then a body of work has grown up supporting and advocating for Drucker's approach. Our own research shows how big a difference developing a few strengths can make. It is distressing to find that fewer than 10% of the executives we work with have any plan to do so.

We are convinced that the problem is less a matter of conviction than of execution. Executives need a path to enhancing their strengths that is as clear as the one to fixing their weaknesses. That is the greatest value, we believe, of the cross-training approach: It allows people to use the linear improvement techniques they know and understand to produce a nonlinear result.

Often executives complain to us that there are not enough good leaders in their organizations. We would argue that in fact far too many leaders are merely good. The challenge is not to replace bad leaders with good ones; it is to turn people like Tom —hardworking, capable executives who are reasonably good at their jobs—into outstanding leaders with distinctive strengths.

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Counterpoint

You Won’t Learn if You Stay in Your Comfort Zone

by Robert Kegan, Lisa Lahey, Andy Fleming, and Matthew Miller

Ordinarily, people acknowledge their vulnerability and imperfections only in rare moments behind closed doors with trusted advisers who swear to protect their privacy. But what we saw at Decurion and Bridgewater—[examples of what we call *deliberately developmental organizations* or organizations that are committed to developing *every one* of their people by weaving personal growth into daily work]—was a pervasive effort to enable employees to feel valuable even when they’re screwing up—to see limitations not as failures but as their “growing edge,” the path to the next level of performance....

Deliberately developmental organizations don’t just accept their employees’ inadequacies; they cultivate them. Both Bridgewater and Decurion give a lot of attention to finding a good fit between the person and the role. But here “good fit” means being regularly, though manageably, in over your head—what we call *constructive destabilization*. Constantly finding yourself a bit at sea is destabilizing. Working through that is

constructive. At both companies, if it's clear that you can perform all your responsibilities at a high level, you are no longer in the right job. If you want to stay in that job, having finally mastered it, you'll be seen as someone who prefers to coast—and should be working for a different kind of company.

Many organizations offer people stretch assignments. Some commonly rotate high potentials through a series of stretch jobs. At Bridgewater and Decurion all jobs are stretch jobs. As [Bridgewater CEO, Ray] Dalio puts it, "Every job should be like a towrope, so that as you grab hold of the job, the very process of doing the work pulls you up the mountain."

Decurion's ArcLight Cinemas has an elaborate set of practices that allow managers at all levels to facilitate constructive destabilization by matching individuals and groups to appropriate development opportunities. The general manager at each location uses data about individual growth to identify ideal job assignments for every employee every week—assignments meant to serve both the crew member's development and the company's business needs. The management team at each location meets weekly to discuss the goals and performance of each hourly employee and to decide whether someone is ready for more responsibility—say, a reassignment from ticket taker to auditorium scout. (Scouts move from one screen to another looking for ways to assist customers; the job requires a fair amount of initiative, creativity, problem solving, and diplomacy.)

As employees demonstrate new capabilities, their progress is recorded on “competency boards,” which are set up in a central back-of-house location in each theater. Colored pins on these boards indicate the capability level of each employee in 15 identified job competencies. This information is used to schedule shift rotations, facilitate peer mentoring, and set expectations for learning as part of a development pipeline. The process meshes individuals’ skills with organizational requirements; everyone can see how important individual growth is to the business and how everyone else’s job knowledge is expanding. At weekly meetings about a dozen home-office executives and movie house general managers review a dashboard showing theater-level and circuit-level business metrics, which include not only traditional industry data on attendance and sales but also the number of crew members ready for promotion to the first tier of management.

Matching a person to an appropriate stretch job is only half the equation. The other half is aligning the job with the person. Decurion creates numerous opportunities for employees to connect their day-to-day work with what is meaningful to them. At most team meetings, for instance, structured check-ins at the beginning and checkouts at the end allow people to identify ways in which they feel connected to—or disconnected from—the work at hand and their colleagues. A manager might, for instance, describe a communication breakthrough with a colleague and how it has made a shared project even more

meaningful. Another manager might report on progress in curbing her tendency to jump in and save the day rather than let the team step up and feel fully accountable.

At one-on-one "touchpoint" meetings with their managers—which happen frequently at all levels of the company—employees can discuss how to realize their personal goals through opportunities tied to Decurion's business needs. One member of a theater crew, for instance, who aspired to become a set decorator (outside Decurion), told us that such a dialogue prompted her general manager to involve her in decor for special events at the cinema—an activity far beyond the scope of her job—in order to align her personal interests with an organizational goal.

For a company to match people with jobs on a continual and granular basis requires that no particular job be dependent on or identified with a single person. That means relinquishing the security of being able to count on someone with long tenure and expertise in a certain role. One senior executive told us, "The purpose of your expertise is to give it away [to the next person coming up]. That sounds wonderful, but in practice—and I have experienced this personally—it is not always easy." Still, all those people constantly growing into ever-changing roles create an organization that becomes more resilient even as it improves the execution of its current strategy.

Adapted from content originally published in April 2014. Reprint R1404B

Find the Coaching in Criticism

by Sheila Heen and Douglas Stone

FEEDBACK IS CRUCIAL. That's obvious: It improves performance, develops talent, aligns expectations, solves problems, guides promotion and pay, and boosts the bottom line.

But it's equally obvious that in many organizations, feedback doesn't work. A glance at the stats tells the story: Only 36% of managers complete appraisals thoroughly and on time. In one recent survey, 55% of employees said their most recent performance review had been unfair or inaccurate, and one in four said they dread such evaluations more than anything else in their working lives. When senior HR executives were asked about their biggest performance management challenge, 63% cited managers' inability or unwillingness to have difficult feedback discussions. Coaching and mentoring? Uneven at best.

Most companies try to address these problems by training leaders to give feedback more effectively and more often. That's fine as far as it goes; everyone benefits when managers

are better communicators. But improving the skills of the feedback giver won't accomplish much if the receiver isn't able to absorb what is said. It is the receiver who controls whether feedback is let in or kept out, who has to make sense of what he or she is hearing, and who decides whether or not to change. People need to stop treating feedback only as something that must be pushed and instead improve their ability to pull.

For the past 20 years we've coached executives on difficult conversations, and we've found that almost everyone, from new hires to C-suite veterans, struggles with receiving feedback. A critical performance review, a well-intended suggestion, or an oblique comment that may or may not even be feedback ("Well, your presentation was certainly interesting") can spark an emotional reaction, inject tension into the relationship, and bring communication to a halt. But there's good news, too: The skills needed to receive feedback well are distinct and learnable. They include being able to identify and manage the emotions triggered by the feedback and extract value from criticism even when it's poorly delivered.

Why Feedback Doesn't Register

What makes receiving feedback so hard? The process strikes at the tension between two core human needs—the need to learn

and grow, and the need to be accepted just the way you are. As a result, even a seemingly benign suggestion can leave you feeling angry, anxious, badly treated, or profoundly threatened. A hedge such as “Don’t take this personally” does nothing to soften the blow.

Getting better at receiving feedback starts with understanding and managing those feelings. You might think there are a thousand ways in which feedback can push your buttons, but in fact there are only three.

Truth triggers are set off by the content of the feedback. When assessments or advice seem off base, unhelpful, or simply untrue, you feel indignant, wronged, and exasperated.

Relationship triggers are tripped by the person providing the feedback. Exchanges are often colored by what you believe about the giver (He’s got no credibility on this topic!) and how you feel about your previous interactions (After all I’ve done for you, I get this petty criticism?). So you might reject coaching that you would accept on its merits if it came from someone else.

Identity triggers are all about your relationship with yourself. Whether the feedback is right or wrong, wise or witless, it can be devastating if it causes your sense of who you are to come undone. In such moments you’ll struggle with feeling overwhelmed, defensive, or off balance.

Idea in Brief

Feedback is crucial—but almost everyone, from new hires to C-suite executives, struggles with receiving it. The authors, who have spent 20 years working with managers on difficult conversations, outline six steps that can help you turn feedback into an important, and unthreatening, tool.

- **Know your tendencies.** Look for patterns in how you respond. Once you understand your standard operating procedure, you can make better choices about where to go from there.
- **Separate the "what" from the "who."** Your feelings about the messenger might be short-circuiting your ability to learn from the message.
- **Sort toward coaching.** Work to hear feedback as well-meant advice, not as an indictment.
- **Unpack the feedback.** Resist snap judgments; explore where suggestions are coming from and where they're going.
- **Request and direct feedback.** Don't wait for a formal review; ask for bite-size pieces of coaching.
- **Experiment.** Try following a piece of advice and seeing what happens.

Criticism is never easy to take—but learning to pull value from it is essential to your development and success.

All these responses are natural and reasonable; in some cases they are unavoidable. The solution isn't to pretend you don't have them. It's to recognize what's happening and learn how to

derive benefit from feedback even when it sets off one or more of your triggers.

Six Steps to Becoming a Better Receiver

Taking feedback well is a process of sorting and filtering. You need to understand the other person's point of view, try on ideas that may at first seem a poor fit, and experiment with different ways of doing things. You also need to discard or shelve critiques that are genuinely misdirected or are not helpful right away. But it's nearly impossible to do any of those things from inside a triggered response. Instead of ushering you into a nuanced conversation that will help you learn, your triggers prime you to reject, counterattack, or withdraw.

The six steps below will keep you from throwing valuable feedback onto the discard pile or—just as damaging—accepting and acting on comments that you would be better off disregarding. They are presented as advice to the receiver. But, of course, understanding the challenges of receiving feedback helps the giver to be more effective too.

1. Know your tendencies

You've been getting feedback all your life, so there are no doubt patterns in how you respond. Do you defend yourself on the facts ("This is plain wrong"), argue about the method of delivery ("You're really doing this by e-mail?"), or strike back ("You, of all people?")? Do you smile on the outside but seethe

on the inside? Do you get teary or filled with righteous indignation? And what role does the passage of time play? Do you tend to reject feedback in the moment and then step back and consider it over time? Do you accept it all immediately but later decide it's not valid? Do you agree with it intellectually but have trouble changing your behavior?

When Michael, an advertising executive, hears his boss make an offhand joke about his lack of professionalism, it hits him like a sledgehammer. "I'm flooded with shame," he told us, "and all my failings rush to mind, as if I'm Googling 'things wrong with me' and getting 1.2 million hits, with sponsored ads from my father and my ex. In this state it's hard to see the feedback at 'actual size.'" But now that Michael understands his standard operating procedure, he's able to make better choices about where to go from there: "I can reassure myself that I'm exaggerating, and usually after I sleep on it, I'm in a better place to figure out whether there's something I can learn."

2. Disentangle the "what" from the "who"

If the feedback is on target and the advice is wise, it shouldn't matter who delivers it. But it does. When a relationship trigger is activated, entwining the content of comments with your feelings about the giver (or about how, when, or where she delivered the comments), learning is short-circuited. To keep

that from happening, you have to work to separate the message from the messenger and then consider both.

Janet, a chemist and a team leader at a pharmaceutical company, received glowing comments from her peers and superiors during her 360-degree review but was surprised by the negative feedback she got from her direct reports. She immediately concluded that the problem was theirs: “I have high standards, and some of them can’t handle that,” she remembers thinking. “They aren’t used to someone holding their feet to the fire.” In this way, she changed the subject from her management style to her subordinates’ competence, preventing her from learning something important about the impact she had on others.

Eventually the penny dropped, Janet says. “I came to see that whether it was their performance problem or my leadership problem, those were not mutually exclusive issues, and both were worth solving.” She was able to disentangle the issues and talk to her team about both. Wisely, she began the conversation with their feedback to her, asking, “What am I doing that’s making things tough? What would improve the situation?”

3. Sort toward coaching

Some feedback is evaluative (“Your rating is a 4”); some is coaching (“Here’s how you can improve”). Everyone needs both. Evaluations tell you where you stand, what to expect,

and what is expected of you. Coaching allows you to learn and improve and helps you play at a higher level.

It's not always easy to distinguish one from the other. When a board member phoned James to suggest that he start the next quarter's CFO presentation with analyst predictions rather than internal projections, was that intended as a helpful suggestion, or was it a veiled criticism of his usual approach? When in doubt, people tend to assume the worst and to put even well-intentioned coaching into the evaluation bin. Feeling judged is likely to set off your identity triggers, and the resulting anxiety can drown out the opportunity to learn. So whenever possible, sort toward coaching. Work to hear feedback as potentially valuable advice from a fresh perspective rather than as an indictment of how you've done things in the past. When James took that approach, "the suggestion became less emotionally loaded," he says. "I decided to hear it as simply an indication of how that board member might more easily digest quarterly information."

4. Unpack the feedback

Often it's not immediately clear whether feedback is valid and useful. So before you accept or reject it, do some analysis to better understand it.

Here's a hypothetical example. Kara, who's in sales, is told by Johann, an experienced colleague, that she needs to "be more assertive." Her reaction might be to reject his advice ("I think

I'm pretty assertive already"). Or she might acquiesce ("I really do need to step it up"). But before she decides what to do, she needs to understand what he really means. Does he think she should speak up more often, or just with greater conviction? Should she smile more, or less? Have the confidence to admit she doesn't know something, or the confidence to pretend she does?

Even the simple advice to "be more assertive" comes from a complex set of observations and judgments that Johann has made while watching Kara in meetings and with customers. Kara needs to dig into the general suggestion and find out what in particular prompted it. What did Johann see her do or fail to do? What did he expect, and what is he worried about? In other words, where is the feedback coming from?

Kara also needs to know where the feedback is going—exactly what Johann wants her to do differently and why. After a clarifying discussion, she might agree that she is less assertive than others on the sales floor but disagree with the idea that she should change. If all her sales heroes are quiet, humble, and deeply curious about customers' needs, Kara's view of what it means to be good at sales might look and sound very different from Johann's *Glengarry Glen Ross* ideal.

When you set aside snap judgments and take time to explore where feedback is coming from and where it's going, you can enter into a rich, informative conversation about perceived best practices—whether you decide to take the advice or not.

5. Ask for just one thing

Feedback is less likely to set off your emotional triggers if you request it and direct it. So don't wait until your annual performance review. Find opportunities to get bite-size pieces of coaching from a variety of people throughout the year. Don't invite criticism with a big, unfocused question like "Do you have any feedback for me?" Make the process more manageable by asking a colleague, a boss, or a direct report, "What's one thing you see me doing (or failing to do) that holds me back?" That person may name the first behavior that comes to mind or the most important one on his or her list. Either way, you'll get concrete information and can tease out more specifics at your own pace.

Roberto, a fund manager at a financial services firm, found his 360-degree review process overwhelming and confusing. "Eighteen pages of charts and graphs and no ability to have follow-up conversations to clarify the feedback was frustrating," he says, adding that it also left him feeling awkward around his colleagues.

Now Roberto taps two or three people each quarter to ask for one thing he might work on. "They don't offer the same things, but over time I hear themes, and that gives me a good sense of where my growth edge lies," he says. "And I have really good conversations—with my boss, with my team, even with peers where there's some friction in the relationship. They're happy

to tell me one thing to change, and often they're right. It does help us work more smoothly together."

Research has shown that those who explicitly seek critical feedback (that is, who are not just fishing for praise) tend to get higher performance ratings. Why? Mainly, we think, because someone who's asking for coaching is more likely to take what is said to heart and genuinely improve. But also because when you ask for feedback, you not only find out how others see you, you also *influence* how they see you. Soliciting constructive criticism communicates humility, respect, passion for excellence, and confidence, all in one go.

6. Engage in small experiments

After you've worked to solicit and understand feedback, it may still be hard to discern which bits of advice will help you and which ones won't. We suggest designing small experiments to find out. Even though you may doubt that a suggestion will be useful, if the downside risk is small and the upside potential is large, it's worth a try. James, the CFO we discussed earlier, decided to take the board member's advice for the next presentation and see what happened. Some directors were pleased with the change, but the shift in format prompted others to offer suggestions of their own. Today James reverse-engineers his presentations to meet board members' current top-of-mind concerns. He sends out an e-mail a week beforehand asking for any burning questions, and either front-

loads his talk with answers to them or signals at the start that he will get to them later on. “It’s a little more challenging to prepare for but actually much easier to give,” he says. “I spend less time fielding unexpected questions, which was the hardest part of the job.”

That’s an example worth following. When someone gives you advice, test it out. If it works, great. If it doesn’t, you can try again, tweak your approach, or decide to end the experiment.

Criticism is never easy to take. Even when you know that it’s essential to your development and you trust that the person delivering it wants you to succeed, it can activate psychological triggers. You might feel misjudged, ill-used, and sometimes threatened to your very core.

Your growth depends on your ability to pull value from criticism in spite of your natural responses and on your willingness to seek out even more advice and coaching from bosses, peers, and subordinates. They may be good or bad at providing it, or they may have little time for it—but you are the most important factor in your own development. If you’re determined to learn from whatever feedback you get, no one can stop you.

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Teaching Smart People How to Learn

by Chris Argyris

ANY COMPANY THAT ASPIRES to succeed in the tougher business environment of the 1990s must first resolve a basic dilemma: success in the marketplace increasingly depends on learning, yet most people don't know how to learn. What's more, those members of the organization that many assume to be the best at learning are, in fact, not very good at it. I am talking about the well-educated, high-powered, high-commitment professionals who occupy key leadership positions in the modern corporation.

Most companies not only have tremendous difficulty addressing this learning dilemma; they aren't even aware that it exists. The reason: they misunderstand what learning is and how to bring it about. As a result, they tend to make two mistakes in their efforts to become a learning organization.

First, most people define learning too narrowly as mere "problem solving," so they focus on identifying and correcting

errors in the external environment. Solving problems is important. But if learning is to persist, managers and employees must also look inward. They need to reflect critically on their own behavior, identify the ways they often inadvertently contribute to the organization's problems, and then change how they act. In particular, they must learn how the very way they go about defining and solving problems can be a source of problems in its own right.

I have coined the terms "single loop" and "double loop" learning to capture this crucial distinction. To give a simple analogy: a thermostat that automatically turns on the heat whenever the temperature in a room drops below 68 degrees is a good example of single-loop learning. A thermostat that could ask, "Why am I set at 68 degrees?" and then explore whether or not some other temperature might more economically achieve the goal of heating the room would be engaging in double-loop learning.

Highly skilled professionals are frequently very good at single-loop learning. After all, they have spent much of their lives acquiring academic credentials, mastering one or a number of intellectual disciplines, and applying those disciplines to solve real-world problems. But ironically, this very fact helps explain why professionals are often so bad at double-loop learning.

Put simply, because many professionals are almost always successful at what they do, they rarely experience failure. And

because they have rarely failed, they have never learned how to learn from failure. So whenever their single-loop learning strategies go wrong, they become defensive, screen out criticism, and put the "blame" on anyone and everyone but themselves. In short, their ability to learn shuts down precisely at the moment they need it the most.

The propensity among professionals to behave defensively helps shed light on the second mistake that companies make about learning. The common assumption is that getting people to learn is largely a matter of motivation. When people have the right attitudes and commitment, learning automatically follows. So companies focus on creating new organizational structures—compensation programs, performance reviews, corporate cultures, and the like—that are designed to create motivated and committed employees.

But effective double-loop learning is not simply a function of how people feel. It is a reflection of how they think—that is, the cognitive rules or reasoning they use to design and implement their actions. Think of these rules as a kind of "master program" stored in the brain, governing all behavior. Defensive reasoning can block learning even when the individual commitment to it is high, just as a computer program with hidden bugs can produce results exactly the opposite of what its designers had planned.

Idea in Brief

Problem solving is an example of **single-loop learning**. You identify an error and apply a particular remedy to correct it. But genuine learning involves an extra step, in which you reflect on your assumptions and test the validity of your hypotheses. Achieving this **double-loop learning** is more than a matter of motivation—you have to reflect on the way you think.

Failure forces you to reflect on your assumptions and inferences. Which is why an organization's smartest and most successful employees are often such poor learners: they haven't had the opportunity for introspection that failure affords. So when they do fail—or merely underperform—they can be surprisingly defensive. Instead of critically examining their own behavior, they cast blame outward—on anyone or anything they can.

Companies can learn how to resolve the learning dilemma. What it takes is to make the ways managers and employees reason about their behavior a focus of organizational learning and continuous improvement programs. Teaching people how to reason about their behavior in new and more effective ways breaks down the defenses that block learning.

All of the examples that follow involve a particular kind of professional: fast-track consultants at major management consulting companies. But the implications of my argument go far beyond this specific occupational group. The fact is, more and more jobs—no matter what the title—are taking on the contours of "knowledge work." People at all levels of the organization must combine the mastery of some highly specialized technical expertise with the ability to work effectively in teams, form productive relationships with clients

and customers, and critically reflect on and then change their own organizational practices. And the nuts and bolts of management—whether of high-powered consultants or service representatives, senior managers or factory technicians—increasingly consists of guiding and integrating the autonomous but interconnected work of highly skilled people.

Idea in Practice

People often profess to be open to critique and new learning, but their actions suggest a very different set of governing values or theories-in-use:

- The desire to remain in unilateral control
- The goal of maximizing "winning" while minimizing "losing"
- The belief that negative feelings should be suppressed
- The desire to appear as rational as possible

Taken together, these values betray a profoundly defensive posture: a need to avoid embarrassment, threat, or feelings of vulnerability and incompetence. This **closed-loop reasoning** explains why the mere encouragement of open inquiry can be intimidating to some. And it's especially relevant to the behavior of many of the most highly skilled and best-trained employees. Behind their high aspirations are an equally high fear of failure and a tendency to be ashamed when they don't live up to their high standards. Consequently, they become brittle and despondent in situations in which they don't excel immediately.

Fortunately, it *is* possible for individuals and organizations to develop more productive patterns of behavior. Two suggestions for how to make this happen:

1. **Apply the same kind of "tough reasoning" you use to conduct strategic analysis.** Collect the most objective data you can find. Make your inferences explicit and test them constantly. Submit your conclusions to the toughest tests of all: make sure they aren't self-serving or impossible for others to verify.

2. **Senior managers must model the desired changes first.** When the leadership demonstrates its willingness to examine critically its own theories-in-use, changing them as indicated, everyone will find it easier to do the same.

   Example: The CEO of an organizational-development firm created a case study to address real problems caused by the intense competition among his direct reports. In a paragraph, he described a meeting he intended to have with his subordinates. Then he wrote down what he planned to say, how he thought his subordinates would respond, as well any thoughts or feelings he thought he might have but not express for fear of derailing the conversation. Instead of actually holding the meeting, he analyzed the scenario he had developed *with* his direct reports. The result was an illuminating conversation in which the CEO and his subordinates were able to circumvent the closed-loop reasoning that had characterized so many prior discussions.

How Professionals Avoid Learning

For 15 years, I have been conducting in-depth studies of management consultants. I decided to study consultants for a few simple reasons. First, they are the epitome of the highly educated professionals who play an increasingly central role in

all organizations. Almost all of the consultants I've studied have MBAs from the top three or four U.S. business schools. They are also highly committed to their work. For instance, at one company, more than 90% of the consultants responded in a survey that they were "highly satisfied" with their jobs and with the company.

I also assumed that such professional consultants would be good at learning. After all, the essence of their job is to teach others how to do things differently. I found, however, that these consultants embodied the learning dilemma. The most enthusiastic about continuous improvement in their own organizations, they were also often the biggest obstacle to its complete success.

As long as efforts at learning and change focused on external organizational factors—job redesign, compensation programs, performance reviews, and leadership training—the professionals were enthusiastic participants. Indeed, creating new systems and structures was precisely the kind of challenge that well-educated, highly motivated professionals thrived on.

And yet the moment the quest for continuous improvement turned to the professionals' *own* performance, something went wrong. It wasn't a matter of bad attitude. The professionals' commitment to excellence was genuine, and the vision of the company was clear. Nevertheless, continuous improvement did not persist. And the longer the continuous improvement efforts

continued, the greater the likelihood that they would produce ever-diminishing returns.

What happened? The professionals began to feel embarrassed. They were threatened by the prospect of critically examining their own role in the organization. Indeed, because they were so well paid (and generally believed that their employers were supportive and fair), the idea that their performance might not be at its best made them feel guilty.

Far from being a catalyst for real change, such feelings caused most to react defensively. They projected the blame for any problems away from themselves and onto what they said were unclear goals, insensitive and unfair leaders, and stupid clients.

Consider this example. At a premier management consulting company, the manager of a case team called a meeting to examine the team's performance on a recent consulting project. The client was largely satisfied and had given the team relatively high marks, but the manager believed the team had not created the value added that it was capable of and that the consulting company had promised. In the spirit of continuous improvement, he felt that the team could do better. Indeed, so did some of the team members.

The manager knew how difficult it was for people to reflect critically on their own work performance, especially in the presence of their manager, so he took a number of steps to make possible a frank and open discussion. He invited to the meeting an outside consultant whom team members knew and

trusted—"just to keep me honest," he said. He also agreed to have the entire meeting tape-recorded. That way, any subsequent confusions or disagreements about what went on at the meeting could be checked against the transcript. Finally, the manager opened the meeting by emphasizing that no subject was off limits—including his own behavior.

"I realize that you may believe you cannot confront me," the manager said. "But I encourage you to challenge me. You have a responsibility to tell me where you think the leadership made mistakes, just as I have the responsibility to identify any I believe you made. And all of us must acknowledge our own mistakes. If we do not have an open dialogue, we will not learn."

The professionals took the manager up on the first half of his invitation but quietly ignored the second. When asked to pinpoint the key problems in the experience with the client, they looked entirely outside themselves. The clients were uncooperative and arrogant. "They didn't think we could help them." The team's own managers were unavailable and poorly prepared. "At times, our managers were not up to speed before they walked into the client meetings." In effect, the professionals asserted that they were helpless to act differently—not because of any limitations of their own but because of the limitations of others.

The manager listened carefully to the team members and tried to respond to their criticisms. He talked about the

mistakes that he had made during the consulting process. For example, one professional objected to the way the manager had run the project meetings. “I see that the way I asked questions closed down discussions,” responded the manager. “I didn’t mean to do that, but I can see how you might have believed that I had already made up my mind.” Another team member complained that the manager had caved in to pressure from his superior to produce the project report far too quickly, considering the team’s heavy work load. “I think that it was my responsibility to have said no,” admitted the manager. “It was clear that we all had an immense amount of work.”

Finally, after some three hours of discussion about his own behavior, the manager began to ask the team members if there were any errors *they* might have made. “After all,” he said, “this client was not different from many others. How can we be more effective in the future?”

The professionals repeated that it was really the clients’ and their own managers’ fault. As one put it, “They have to be open to change and want to learn.” The more the manager tried to get the team to examine its own responsibility for the outcome, the more the professionals bypassed his concerns. The best one team member could suggest was for the case team to “promise less”—implying that there was really no way for the group to improve its performance.

The case team members were reacting defensively to protect themselves, even though their manager was not acting in ways

that an outsider would consider threatening. Even if there were some truth to their charges—the clients may well have been arrogant and closed, their own managers distant—the way they presented these claims was guaranteed to stop learning. With few exceptions, the professionals made attributions about the behavior of the clients and the managers but never publicly tested their claims. For instance, they said that the clients weren't motivated to learn but never really presented any evidence supporting that assertion. When their lack of concrete evidence was pointed out to them, they simply repeated their criticisms more vehemently.

If the professionals had felt so strongly about these issues, why had they never mentioned them during the project? According to the professionals, even this was the fault of others. "We didn't want to alienate the client," argued one. "We didn't want to be seen as whining," said another.

The professionals were using their criticisms of others to protect themselves from the potential embarrassment of having to admit that perhaps they too had contributed to the team's less-than-perfect performance. What's more, the fact that they kept repeating their defensive actions in the face of the manager's efforts to turn the group's attention to its own role shows that this defensiveness had become a reflexive routine. From the professionals' perspective, they weren't resisting; they were focusing on the "real" causes. Indeed, they

were to be respected, if not congratulated, for working as well as they did under such difficult conditions.

The end result was an unproductive parallel conversation. Both the manager and the professionals were candid; they expressed their views forcefully. But they talked past each other, never finding a common language to describe what had happened with the client. The professionals kept insisting that the fault lay with others. The manager kept trying, unsuccessfully, to get the professionals to see how they contributed to the state of affairs they were criticizing. The dialogue of this parallel conversation looks like this:

Professionals: "The clients have to be open. They must want to change."

Manager: "It's our task to help them see that change is in their interest."

Professionals: "But the clients didn't agree with our analyses."

Manager: "If they didn't think our ideas were right, how might we have convinced them?"

Professionals: "Maybe we need to have more meetings with the client."

Manager: "If we aren't adequately prepared and if the clients don't think we're credible, how will more meetings help?"

Professionals: "There should be better communication between case team members and management."

Manager: "I agree. But professionals should take the initiative to educate the manager about the problems they are experiencing."

Professionals: "Our leaders are unavailable and distant."

Manager: "How do you expect us to know that if you don't tell us?"

Conversations such as this one dramatically illustrate the learning dilemma. The problem with the professionals' claims is not that they are wrong but that they aren't useful. By constantly turning the focus away from their own behavior to that of others, the professionals bring learning to a grinding halt. The manager understands the trap but does not know how to get out of it. To learn how to do that requires going deeper into the dynamics of defensive reasoning—and into the special causes that make professionals so prone to it.

Defensive Reasoning and the Doom Loop

What explains the professionals' defensiveness? Not their attitudes about change or commitment to continuous improvement; they really wanted to work more effectively. Rather, the key factor is the way they reasoned about their behavior and that of others.

It is impossible to reason anew in every situation. If we had to think through all the possible responses every time someone asked, “How are you?” the world would pass us by. Therefore, everyone develops a theory of action—a set of rules that individuals use to design and implement their own behavior as well as to understand the behavior of others. Usually, these theories of actions become so taken for granted that people don’t even realize they are using them.

One of the paradoxes of human behavior, however, is that the master program people actually use is rarely the one they think they use. Ask people in an interview or questionnaire to articulate the rules they use to govern their actions, and they will give you what I call their “espoused” theory of action. But observe these same people’s behavior, and you will quickly see that this espoused theory has very little to do with how they actually behave. For example, the professionals on the case team said they believed in continuous improvement, and yet they consistently acted in ways that made improvement impossible.

When you observe people’s behavior and try to come up with rules that would make sense of it, you discover a very different theory of action—what I call the individual’s “theory-in-use.” Put simply, people consistently act inconsistently, unaware of the contradiction between their espoused theory and their theory-in-use, between the way they think they are acting and the way they really act.

What's more, most theories-in-use rest on the same set of governing values. There seems to be a universal human tendency to design one's actions consistently according to four basic values:

1. To remain in unilateral control;
2. To maximize "winning" and minimize "losing";
3. To suppress negative feelings; and
4. To be as "rational" as possible—by which people mean defining clear objectives and evaluating their behavior in terms of whether or not they have achieved them.

The purpose of all these values is to avoid embarrassment or threat, feeling vulnerable or incompetent. In this respect, the master program that most people use is profoundly defensive. Defensive reasoning encourages individuals to keep private the premises, inferences, and conclusions that shape their behavior and to avoid testing them in a truly independent, objective fashion.

Because the attributions that go into defensive reasoning are never really tested, it is a closed loop, remarkably impervious to conflicting points of view. The inevitable response to the observation that somebody is reasoning defensively is yet more defensive reasoning. With the case team, for example, whenever anyone pointed out the professionals' defensive behavior to them, their initial reaction was to look for the cause

in somebody else—clients who were so sensitive that they would have been alienated if the consultants had criticized them or a manager so weak that he couldn't have taken it had the consultants raised their concerns with him. In other words, the case team members once again denied their own responsibility by externalizing the problem and putting it on someone else.

In such situations, the simple act of encouraging more open inquiry is often attacked by others as "intimidating." Those who do the attacking deal with their feelings about possibly being wrong by blaming the more open individual for arousing these feelings and upsetting them.

Needless to say, such a master program inevitably short-circuits learning. And for a number of reasons unique to their psychology, well-educated professionals are especially susceptible to this.

Nearly all the consultants I have studied have stellar academic records. Ironically, their very success at education helps explain the problems they have with learning. Before they enter the world of work, their lives are primarily full of successes, so they have rarely experienced the embarrassment and sense of threat that comes with failure. As a result, their defensive reasoning has rarely been activated. People who rarely experience failure, however, end up not knowing how to deal with it effectively. And this serves to reinforce the normal human tendency to reason defensively.

In a survey of several hundred young consultants at the organizations I have been studying, these professionals describe themselves as driven internally by an unrealistically high ideal of performance: “Pressure on the job is self-imposed.” “I must not only do a good job; I must also be the best.” “People around here are very bright and hardworking; they are highly motivated to do an outstanding job.” “Most of us want not only to succeed but also to do so at maximum speed.”

These consultants are always comparing themselves with the best around them and constantly trying to better their own performance. And yet they do not appreciate being required to compete openly with each other. They feel it is somehow inhumane. They prefer to be the individual contributor—what might be termed a “productive loner.”

Behind this high aspiration for success is an equally high fear of failure and a propensity to feel shame and guilt when they do fail to meet their high standards. “You must avoid mistakes,” said one. “I hate making them. Many of us fear failure, whether we admit it or not.”

To the extent that these consultants have experienced success in their lives, they have not had to be concerned about failure and the attendant feelings of shame and guilt. But to exactly the same extent, they also have never developed the tolerance for feelings of failure or the skills to deal with these feelings. This in turn has led them not only to fear failure but

also to fear the fear of failure itself. For they know that they will not cope with it superlatively—their usual level of aspiration.

The consultants use two intriguing metaphors to describe this phenomenon. They talk about the “doom loop” and “doom zoom.” Often, consultants will perform well on the case team, but because they don’t do the jobs perfectly or receive accolades from their managers, they go into a doom loop of despair. And they don’t ease into the doom loop, they zoom into it.

As a result, many professionals have extremely “brittle” personalities. When suddenly faced with a situation they cannot immediately handle, they tend to fall apart. They cover up their distress in front of the client. They talk about it constantly with their fellow case team members. Interestingly, these conversations commonly take the form of bad-mouthing clients.

Such brittleness leads to an inappropriately high sense of despondency or even despair when people don’t achieve the high levels of performance they aspire to. Such despondency is rarely psychologically devastating, but when combined with defensive reasoning, it can result in a formidable predisposition against learning.

There is no better example of how this brittleness can disrupt an organization than performance evaluations. Because it represents the one moment when a professional must measure

his or her own behavior against some formal standard, a performance evaluation is almost tailor-made to push a professional into the doom loop. Indeed, a poor evaluation can reverberate far beyond the particular individual involved to spark defensive reasoning throughout an entire organization.

At one consulting company, management established a new performance-evaluation process that was designed to make evaluations both more objective and more useful to those being evaluated. The consultants participated in the design of the new system and in general were enthusiastic because it corresponded to their espoused values of objectivity and fairness. A brief two years into the new process, however, it had become the object of dissatisfaction. The catalyst for this about-face was the first unsatisfactory rating.

Senior managers had identified six consultants whose performance they considered below standard. In keeping with the new evaluation process, they did all they could to communicate their concerns to the six and to help them improve. Managers met with each individual separately for as long and as often as the professional requested to explain the reasons behind the rating and to discuss what needed to be done to improve—but to no avail. Performance continued at the same low level and, eventually, the six were let go.

When word of the dismissal spread through the company, people responded with confusion and anxiety. After about a dozen consultants angrily complained to management, the

CEO held two lengthy meetings where employees could air their concerns.

At the meetings, the professionals made a variety of claims. Some said the performance-evaluation process was unfair because judgments were subjective and biased and the criteria for minimum performance unclear. Others suspected that the real cause for the dismissals was economic and that the performance-evaluation procedure was just a fig leaf to hide the fact that the company was in trouble. Still others argued that the evaluation process was antilearning. If the company were truly a learning organization, as it claimed, then people performing below the minimum standard should be taught how to reach it. As one professional put it: "We were told that the company did not have an up-or-out policy. Up-or-out is inconsistent with learning. You misled us."

The CEO tried to explain the logic behind management's decision by grounding it in the facts of the case and by asking the professionals for any evidence that might contradict these facts.

Is there subjectivity and bias in the evaluation process? Yes, responded the CEO, but "we strive hard to reduce them. We are constantly trying to improve the process. If you have any ideas, please tell us. If you know of someone treated unfairly, please bring it up. If any of you feel that you have been treated unfairly, let's discuss it now or, if you wish, privately."

Is the level of minimum competence too vague? “We are working to define minimum competence more clearly,” he answered. “In the case of the six, however, their performance was so poor that it wasn’t difficult to reach a decision.” Most of the six had received timely feedback about their problems. And in the two cases where people had not, the reason was that they had never taken the responsibility to seek out evaluations —and, indeed, had actively avoided them. “If you have any data to the contrary,” the CEO added, “let’s talk about it.”

Were the six asked to leave for economic reasons? No, said the CEO. “We have more work than we can do, and letting professionals go is extremely costly for us. Do any of you have any information to the contrary?”

As to the company being antilearning, in fact, the entire evaluation process was designed to encourage learning. When a professional is performing below the minimum level, the CEO explained, “we jointly design remedial experiences with the individual. Then we look for signs of improvement. In these cases, either the professionals were reluctant to take on such assignments or they repeat-edly failed when they did. Again, if you have information or evidence to the contrary, I’d like to hear about it.”

The CEO concluded: “It’s regrettable, but sometimes we make mistakes and hire the wrong people. If individuals don’t produce and repeatedly prove themselves unable to improve, we don’t know what else to do except dismiss them. It’s just

not fair to keep poorly performing individuals in the company. They earn an unfair share of the financial rewards."

Instead of responding with data of their own, the professionals simply repeated their accusations but in ways that consistently contradicted their claims. They said that a genuinely fair evaluation process would contain clear and documentable data about performance—but they were unable to provide firsthand examples of the unfairness that they implied colored the evaluation of the six dismissed employees. They argued that people shouldn't be judged by inferences unconnected to their actual performance—but they judged management in precisely this way. They insisted that management define clear, objective, and unambiguous performance standards—but they argued that any humane system would take into account that the performance of a professional cannot be precisely measured. Finally, they presented themselves as champions of learning—but they never proposed any criteria for assessing whether an individual might be unable to learn.

In short, the professionals seemed to hold management to a different level of performance than they held themselves. In their conversation at the meetings, they used many of the features of ineffective evaluation that they condemned—the absence of concrete data, for example, and the dependence on a circular logic of "heads we win, tails you lose." It is as if they were saying, "Here are the features of a fair performance-

evaluation system. You should abide by them. But we don't have to when we are evaluating you."

Indeed, if we were to explain the professionals' behavior by articulating rules that would have to be in their heads in order for them to act the way they did, the rules would look something like this:

1. When criticizing the company, state your criticism in ways that you believe are valid—but also in ways that prevent others from deciding for themselves whether your claim to validity is correct.
2. When asked to illustrate your criticisms, don't include any data that others could use to decide for themselves whether the illustrations are valid.
3. State your conclusions in ways that disguise their logical implications. If others point out those implications to you, deny them.

Of course, when such rules were described to the professionals, they found them abhorrent. It was inconceivable that these rules might explain their actions. And yet in defending themselves against this observation, they almost always inadvertently confirmed the rules.

Learning How to Reason Productively

If defensive reasoning is as widespread as I believe, then focusing on an individual's attitudes or commitment is never enough to produce real change. And as the previous example illustrates, neither is creating new organizational structures or systems. The problem is that even when people are genuinely committed to improving their performance and management has changed its structures in order to encourage the "right" kind of behavior, people still remain locked in defensive reasoning. Either they remain unaware of this fact, or if they do become aware of it, they blame others.

There is, however, reason to believe that organizations can break out of this vicious circle. Despite the strength of defensive reasoning, people genuinely strive to produce what they intend. They value acting competently. Their self-esteem is intimately tied up with behaving consistently and performing effectively. Companies can use these universal human tendencies to teach people how to reason in a new way —in effect, to change the master programs in their heads and thus reshape their behavior.

People can be taught how to recognize the reasoning they use when they design and implement their actions. They can begin to identify the inconsistencies between their espoused and actual theories of action. They can face up to the fact that they unconsciously design and implement actions that they do not intend. Finally, people can learn how to identify what individuals and groups do to create organizational defenses

and how these defenses contribute to an organization's problems.

Once companies embark on this learning process, they will discover that the kind of reasoning necessary to reduce and overcome organizational defenses is the same kind of "tough reasoning" that underlies the effective use of ideas in strategy, finance, marketing, manufacturing, and other management disciplines. Any sophisticated strategic analysis, for example, depends on collecting valid data, analyzing it carefully, and constantly testing the inferences drawn from the data. The toughest tests are reserved for the conclusions. Good strategists make sure that their conclusions can withstand all kinds of critical questioning.

So too with productive reasoning about human behavior. The standard of analysis is just as high. Human resource programs no longer need to be based on "soft" reasoning but should be as analytical and as data-driven as any other management discipline.

Of course, that is not the kind of reasoning the consultants used when they encountered problems that were embarrassing or threatening. The data they collected was hardly objective. The inferences they made rarely became explicit. The conclusions they reached were largely self-serving, impossible for others to test, and as a result, "self-sealing," impervious to change.

How can an organization begin to turn this situation around, to teach its members how to reason productively? The first step is for managers at the top to examine critically and change their own theories-in-use. Until senior managers become aware of how they reason defensively and the counterproductive consequences that result, there will be little real progress. Any change activity is likely to be just a fad.

Change has to start at the top because otherwise defensive senior managers are likely to disown any transformation in reasoning patterns coming from below. If professionals or middle managers begin to change the way they reason and act, such changes are likely to appear strange—if not actually dangerous—to those at the top. The result is an unstable situation where senior managers still believe that it is a sign of caring and sensitivity to bypass and cover up difficult issues, while their subordinates see the very same actions as defensive.

The key to any educational experience designed to teach senior managers how to reason productively is to connect the program to real business problems. The best demonstration of the usefulness of productive reasoning is for busy managers to see how it can make a direct difference in their own performance and in that of the organization. This will not happen overnight. Managers need plenty of opportunity to practice the new skills. But once they grasp the powerful impact that productive reasoning can have on actual

performance, they will have a strong incentive to reason productively not just in a training session but in all their work relationships.

One simple approach I have used to get this process started is to have participants produce a kind of rudimentary case study. The subject is a real business problem that the manager either wants to deal with or has tried unsuccessfully to address in the past. Writing the actual case usually takes less than an hour. But then the case becomes the focal point of an extended analysis.

For example, a CEO at a large organizational-development consulting company was preoccupied with the problems caused by the intense competition among the various business functions represented by his four direct reports. Not only was he tired of having the problems dumped in his lap, but he was also worried about the impact the interfunctional conflicts were having on the organization's flexibility. He had even calculated that the money being spent to iron out disagreements amounted to hundreds of thousands of dollars every year. And the more fights there were, the more defensive people became, which only increased the costs to the organization.

In a paragraph or so, the CEO described a meeting he intended to have with his direct reports to address the problem. Next, he divided the paper in half, and on the right-hand side of the page, he wrote a scenario for the meeting—

much like the script for a movie or play—describing what he would say and how his subordinates would likely respond. On the left-hand side of the page, he wrote down any thoughts and feelings that he would be likely to have during the meeting but that he wouldn't express for fear they would derail the discussion.

But instead of holding the meeting, the CEO analyzed this scenario *with* his direct reports. The case became the catalyst for a discussion in which the CEO learned several things about the way he acted with his management team.

He discovered that his four direct reports often perceived his conversations as counterproductive. In the guise of being "diplomatic," he would pretend that a consensus about the problem existed, when in fact none existed. The unintended result: instead of feeling reassured, his subordinates felt wary and tried to figure out "what is he *really* getting at."

The CEO also realized that the way he dealt with the competitiveness among department heads was completely contradictory. On the one hand, he kept urging them to "think of the organization as a whole." On the other, he kept calling for actions—department budget cuts, for example—that placed them directly in competition with each other.

Finally, the CEO discovered that many of the tacit evaluations and attributions he had listed turned out to be wrong. Since he had never expressed these assumptions, he had never found out just how wrong they were. What's more,

he learned that much of what he thought he was hiding came through to his subordinates anyway—but with the added message that the boss was covering up.

The CEO's colleagues also learned about their own ineffective behavior. They learned by examining their own behavior as they tried to help the CEO analyze his case. They also learned by writing and analyzing cases of their own. They began to see that they too tended to bypass and cover up the real issues and that the CEO was often aware of it but did not say so. They too made inaccurate attributions and evaluations that they did not express. Moreover, the belief that they had to hide important ideas and feelings from the CEO and from each other in order not to upset anyone turned out to be mistaken. In the context of the case discussions, the entire senior management team was quite willing to discuss what had always been undiscussable.

In effect, the case study exercise legitimizes talking about issues that people have never been able to address before. Such a discussion can be emotional—even painful. But for managers with the courage to persist, the payoff is great: management teams and entire organizations work more openly and more effectively and have greater options for behaving flexibly and adapting to particular situations.

When senior managers are trained in new reasoning skills, they can have a big impact on the performance of the entire organization—even when other employees are still reasoning

defensively. The CEO who led the meetings on the performance-evaluation procedure was able to defuse dissatisfaction because he didn't respond to professionals' criticisms in kind but instead gave a clear presentation of relevant data. Indeed, most participants took the CEO's behavior to be a sign that the company really acted on the values of participation and employee involvement that it espoused.

Of course, the ideal is for all the members of an organization to learn how to reason productively. This has happened at the company where the case team meeting took place. Consultants and their managers are now able to confront some of the most difficult issues of the consultant-client relationship. To get a sense of the difference productive reasoning can make, imagine how the original conversation between the manager and case team might have gone had everyone engaged in effective reasoning. (The following dialogue is based on actual sessions I have attended with other case teams at the same company since the training has been completed.)

First, the consultants would have demonstrated their commitment to continuous improvement by being willing to examine their own role in the difficulties that arose during the consulting project. No doubt they would have identified their managers and the clients as part of the problem, but they would have gone on to admit that they had contributed to it as well. More important, they would have agreed with the

manager that as they explored the various roles of clients, managers, and professionals, they would make sure to test any evaluations or attributions they might make against the data. Each individual would have encouraged the others to question his or her reasoning. Indeed, they would have insisted on it. And in turn, everyone would have understood that act of questioning not as a sign of mistrust or an invasion of privacy but as a valuable opportunity for learning.

The conversation about the manager's unwillingness to say no might look something like this:

> *Professional #1:* "One of the biggest problems I had with the way you managed this case was that you seemed to be unable to say no when either the client or your superior made unfair demands." [Gives an example.]
>
> *Professional #2:* "I have another example to add. [Describes a second example.] But I'd also like to say that we never really told you how we felt about this. Behind your back we were bad-mouthing you—you know, 'he's being such a wimp'—but we never came right out and said it."
>
> *Manager:* "It certainly would have been helpful if you had said something. Was there anything I said or did that gave you the idea that you had better not raise this with me?"
>
> *Professional #3:* "Not really. I think we didn't want to sound like we were whining."

Manager: "Well, I certainly don't think you sound like you're whining. But two thoughts come to mind. If I understand you correctly, you *were* complaining, but the complaining about me and my inability to say no was covered up. Second, if we had discussed this, I might have gotten the data I needed to be able to say no."

Notice that when the second professional describes how the consultants had covered up their complaints, the manager doesn't criticize her. Rather, he rewards her for being open by responding in kind. He focuses on the ways that he too may have contributed to the cover-up. Reflecting undefensively about his own role in the problem then makes it possible for the professionals to talk about their fears of appearing to be whining. The manager then agrees with the professionals that they shouldn't become complainers. At the same time, he points out the counterproductive consequences of covering up their complaints.

Another unresolved issue in the case team meeting concerned the supposed arrogance of the clients. A more productive conversation about that problem might go like this:

Manager: "You said that the clients were arrogant and uncooperative. What did they say and do?"

Professional #1: "One asked me if I had ever met a payroll. Another asked how long I've been out of school."

Professional #2: "One even asked me how old I was!"

Professional #3: "That's nothing. The worst is when they say that all we do is interview people, write a report based on what they tell us, and then collect our fees."

Manager: "The fact that we tend to be so young is a real problem for many of our clients. They get very defensive about it. But I'd like to explore whether there is a way for them to freely express their views without our getting defensive…"

"What troubled me about your original responses was that you assumed you were right in calling the clients stupid. One thing I've noticed about consultants—in this company and others—is that we tend to defend ourselves by bad-mouthing the client."

Professional #1: "Right. After all, if they are genuinely stupid, then it's obviously not our fault that they aren't getting it!"

Professional #2: "Of course, that stance is antilearning and over-protective. By assuming that they can't learn, we absolve ourselves from having to."

Professional #3: "And the more we all go along with the bad-mouthing, the more we reinforce each other's defensiveness."

Manager: "So what's the alternative? How can we encourage our clients to express their defensiveness and at the same

time constructively build on it?"

Professional #1: "We all know that the real issue isn't our age; it's whether or not we are able to add value to the client's organization. They should judge us by what we produce. And if we aren't adding value, they should get rid of us—no matter how young or old we happen to be."

Manager: "Perhaps that is exactly what we should tell them."

In both these examples, the consultants and their manager are doing real work. They are learning about their own group dynamics and addressing some generic problems in client-consultant relationships. The insights they gain will allow them to act more effectively in the future—both as individuals and as a team. They are not just solving problems but developing a far deeper and more textured understanding of their role as members of the organization. They are laying the groundwork for continuous improvement that is truly continuous. They are learning how to learn.

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The Feedback Fallacy

by Marcus Buckingham and Ashley Goodall

THE DEBATE ABOUT FEEDBACK AT WORK isn't new. Since at least the middle of the last century, the question of how to get employees to improve has generated a good deal of opinion and research. But recently the discussion has taken on new intensity.

The ongoing experiment in "radical transparency" at Bridgewater Associates and the culture at Netflix, which the *Wall Street Journal* recently described as "encouraging harsh feedback" and subjecting workers to "intense and awkward" real-time 360s, are but two examples of the overriding belief that the way to increase performance in companies is through rigorous, frequent, candid, pervasive, and often critical feedback.

How should we give and receive feedback? we wonder. How much, and how often, and using which new app? And, given the hoopla over the approaches of Bridgewater and Netflix, how hard-edged and fearlessly candid should we be? Behind

those questions, however, is another question that we're missing, and it's a crucial one. The search for ways to give and receive better feedback assumes that feedback is always useful. But the only reason we're pursuing it is to help people do better. And when we examine *that*—asking, *How can we help each person thrive and excel?*—we find that the answers take us in a different direction.

To be clear, instruction—telling people what steps to follow or what factual knowledge they're lacking—can be truly useful: That's why we have checklists in airplane cockpits and, more recently, in operating rooms. There is indeed a right way for a nurse to give an injection safely, and if you as a novice nurse miss one of the steps, or if you're unaware of critical facts about a patient's condition, then someone should tell you. But the occasions when the actions or knowledge necessary to minimally perform a job can be objectively defined in advance are rare and becoming rarer. What we mean by "feedback" is very different. Feedback is about telling people what we think of their performance and how they should do it better—whether they're giving an effective presentation, leading a team, or creating a strategy. And on that, the research is clear: Telling people what we think of their performance doesn't help them thrive and excel, and telling people how we think they should improve actually *hinders* learning.

Underpinning the current conviction that feedback is an unalloyed good are three theories that we in the business

world commonly accept as truths. The first is that other people are more aware than you are of your weaknesses, and that the best way to help you, therefore, is for them to show you what you cannot see for yourself. We can call this our *theory of the source of truth.* You do not realize that your suit is shabby, that your presentation is boring, or that your voice is grating, so it is up to your colleagues to tell you as plainly as possible "where you stand." If they didn't, you would never know, and this would be bad.

The second belief is that the process of learning is like filling up an empty vessel: You lack certain abilities you need to acquire, so your colleagues should teach them to you. We can call this our *theory of learning*. If you're in sales, how can you possibly close deals if you don't learn the competency of "mirroring and matching" the prospect? If you're a teacher, how can you improve if you don't learn and practice the steps in the latest team-teaching technique or "flipped classroom" format? The thought is that you can't—and that you need feedback to develop the skills you're missing.

And the third belief is that great performance is universal, analyzable, and describable, and that once defined, it can be transferred from one person to another, regardless of who each individual is. Hence you can, with feedback about what excellence looks like, understand where you fall short of this ideal and then strive to remedy your shortcomings. We can call this our *theory of excellence*. If you're a manager, your boss

might show you the company's supervisor-behaviors model, hold you up against it, and tell you what you need to do to more closely hew to it. If you aspire to lead, your firm might use a 360-degree feedback tool to measure you against its predefined leadership competencies and then suggest various courses or experiences that will enable you to acquire the competencies that your results indicate you lack.

Idea in Brief

The Challenge

Managers today are bombarded with calls to give feedback—constantly, directly, and critically. But it turns out that telling people what we think of their performance and how they can do better is not the best way to help them excel and, in fact, can hinder development.

The Reality

Research shows that, first, we aren't the reliable raters of other people's performance that we think we are; second, criticism inhibits the brain's ability to learn; and, third, excellence is idiosyncratic, can't be defined in advance, and isn't the opposite of failure. Managers can't "correct" a person's way to excellence.

The Solution

Managers need to help their team members see what's working, stopping them with a "Yes! That!" and sharing their experience of what the person did well.

What these three theories have in common is self-centeredness: They take our own expertise and what we are sure is our colleagues' inexpertise as givens; they assume that

my way is necessarily your way. But as it turns out, in extrapolating from what creates our own performance to what might create performance in others, we overreach.

Research reveals that none of these theories is true. The more we depend on them, and the more technology we base on them, the *less* learning and productivity we will get from others. To understand why and to see the path to a more effective way of improving performance, let's look more closely at each theory in turn.

The Source of Truth

The first problem with feedback is that humans are unreliable raters of other humans. Over the past 40 years psychometricians have shown in study after study that people don't have the objectivity to hold in their heads a stable definition of an abstract quality, such as *business acumen* or *assertiveness*, and then accurately evaluate someone else on it. Our evaluations are deeply colored by our own understanding of what we're rating others on, our own sense of what good looks like for a particular competency, our harshness or leniency as raters, and our own inherent and unconscious biases. This phenomenon is called the *idiosyncratic rater effect*, and it's large (more than half of your rating of someone else reflects your characteristics, not hers) and resilient (no training

can lessen it). In other words, the research shows that feedback is more distortion than truth.

This is why, despite all the training available on how to *receive* feedback, it's such hard work: Recipients have to struggle through this forest of distortion in search of something that they recognize as themselves.

And because your feedback to others is always more you than them, it leads to systematic error, which is magnified when ratings are considered in aggregate. There are only two sorts of measurement error in the world: *random* error, which you can reduce by averaging many readings; and *systematic* error, which you can't. Unfortunately, we all seem to have left math class remembering the former and not the latter. We've built all our performance and leadership feedback tools as though assessment errors are random, and they're not. They're systematic.

Consider color blindness. If we ask a color-blind person to rate the redness of a particular rose, we won't trust his feedback—we know that he is incapable of seeing, let alone "rating," red. His error isn't random; it's predictable and explainable, and it stems from a flaw in his measurement system; hence, it's systematic. If we then decide to ask seven more color-blind people to rate the redness of our rose, their errors will be equally systematic, and averaging their ratings won't get us any closer to determining the actual redness of the rose. In fact, it's worse than this. Adding up all the inaccurate

redness ratings—"gray," "pretty gray," "whitish gray," "muddy brown," and so on—and averaging them leads us *further away* both from learning anything reliable about the individuals' personal experiences of the rose and from the actual truth of how red our rose really is.

What the research has revealed is that we're all color-blind when it comes to abstract attributes, such as *strategic thinking*, *potential*, and *political savvy*. Our inability to rate others on them is predictable and explainable—it is systematic. We cannot remove the error by adding more data inputs and averaging them out, and doing that actually makes the error bigger.

Worse still, although science has long since proven that we are color-blind, in the business world we assume we're clear-eyed. Deep down we don't think we make very many errors at all. We think we're reliable raters of others. We think we're a source of truth. We aren't. We're a source of error.

When a feedback instrument surveys eight colleagues about your business acumen, your score of 3.79 is far greater a distortion than if it simply surveyed one person about you—the 3.79 number is *all* noise, no signal. Given that (a) we're starting to see more of this sort of data-based feedback, (b) this data on you will likely be kept by your company for a very long time, and (c) it will be used to pay, promote, train, and deploy or fire you, you should be worried about just how fundamentally flawed it really is.

The only realm in which humans are an unimpeachable source of truth is that of their own feelings and experiences. Doctors have long known this. When they check up on you post-op, they'll ask, "On a scale of one to 10, with 10 being high, how would you rate your pain?" And if you say, "Five," the doctor may then prescribe all manner of treatments, but what she's unlikely to do is challenge you on your "five." It doesn't make sense, no matter how many operations she has done, to tell you your "five" is wrong, and that, actually, this morning your pain is a "three." It doesn't make sense to try to parse what you mean by "five," and whether any cultural differences might indicate that your "five" is not, in fact, a real "five." It doesn't make sense to hold calibration sessions with other doctors to ensure that your "five" is the same as the other "fives" in the rooms down the hall. Instead, she can be confident that you are the best judge of your pain and that all she can know for sure is that you will be feeling better when you rate your pain lower. Your rating is yours, not hers.

Just as your doctor doesn't know the truth of your pain, we don't know the truth about our colleagues, at least not in any objective way. You may read that workers today—especially Millennials—want to know where they stand. You may occasionally have team members ask you to tell them where they stand, objectively. You may feel that it's your duty to try to answer these questions. But you can't—none of us can. All we can do—and it's not nothing—is share our own feelings and

experiences, our own reactions. Thus we can tell someone whether his voice grates *on us*; whether he's persuasive *to us*; whether his presentation is boring *to us.* We may not be able to tell him where he stands, but we can tell him where he stands *with us*. Those are our truths, not his. This is a humbler claim, but at least it's accurate.

How We Learn

Another of our collective theories is that feedback contains useful information, and that this information is the magic ingredient that will accelerate someone's learning. Again, the research points in the opposite direction. Learning is less a function of adding something that isn't there than it is of recognizing, reinforcing, and refining what already is. There are two reasons for this.

The first is that, neurologically, we grow more in our areas of greater ability (our strengths are our development areas). The brain continues to develop throughout life, but each person's does so differently. Because of your genetic inheritance and the oddities of your early childhood environment, your brain's wiring is utterly unique. Some parts of it have tight thickets of synaptic connections, while others are far less dense, and these patterns are different from one person to the next. According to brain science, people grow far more neurons and synaptic connections where they already have the most neurons and

synaptic connections. In other words, each brain grows most where it's already strongest. As Joseph LeDoux, a professor of neuroscience at New York University, memorably described it, "Added connections are therefore more like new buds on a branch rather than new branches." Through this lens, learning looks a lot like building, little by little, on the unique patterns already there within you. Which in turn means learning has to start by finding and understanding those patterns—your patterns, not someone else's.

Second, getting attention to our strengths from others catalyzes learning, whereas attention to our weaknesses smothers it. Neurological science also shows what happens to us when other people focus on what's working within us instead of remediating what isn't. In one experiment scientists split students into two groups. To one group they gave positive coaching, asking the students about their dreams and how they'd go about achieving them. The scientists probed the other group about homework and what the students thought they were doing wrong and needed to fix. While those conversations were happening, the scientists hooked each student up to a functional magnetic resonance imaging machine to see which parts of the brain were most activated in response to these different sorts of attention.

In the brains of the students asked about what they needed to correct, the sympathetic nervous system lit up. This is the "fight or flight" system, which mutes the other parts of the

brain and allows us to focus only on the information most necessary to survive. Your brain responds to critical feedback as a threat and narrows its activity. The strong negative emotion produced by criticism "inhibits access to existing neural circuits and invokes cognitive, emotional, and perceptual impairment," psychology and business professor Richard Boyatzis said in summarizing the researchers' findings.

Focusing people on their shortcomings or gaps doesn't enable learning. It impairs it.

In the students who focused on their dreams and how they might achieve them, the sympathetic nervous system was not activated. What lit up instead was the parasympathetic nervous system, sometimes referred to as the "rest and digest" system. To quote Boyatzis again: "The parasympathetic nervous system … stimulates adult neurogenesis (i.e., growth of new neurons) …, a sense of well-being, better immune system functioning, and cognitive, emotional, and perceptual openness."

What findings such as these show us is, first, that learning happens when we see how we might do something better by adding some new nuance or expansion to our own understanding. Learning rests on our grasp of what we're doing well, not on what we're doing poorly, and certainly not on someone else's sense of what we're doing poorly. And second, that we learn most when someone else pays attention to what's working within us and asks us to cultivate it intelligently. We're

often told that the key to learning is to get out of our comfort zones, but these findings contradict that particular chestnut: Take us very far out of our comfort zones, and our brains stop paying attention to anything other than surviving the experience. It's clear that we learn most in our comfort zones, because that's where our neural pathways are most concentrated. It's where we're most open to possibility, most creative, insightful, and productive. That's where feedback must meet us—in our moments of flow.

Excellence

We spend the bulk of our working lives pursuing excellence in the belief that while defining it is easy, the really hard part is codifying how we and everyone else on our team should get there. We've got it backward: Excellence in any endeavor is almost impossible to define, and yet getting there, for each of us, is relatively easy.

Excellence is idiosyncratic. Take funniness—the ability to make others laugh. If you watch early Steve Martin clips, you might land on the idea that excellence at it means strumming a banjo, waggling your knees, and wailing, "I'm a wild and crazy guy!" But watch Jerry Seinfeld, and you might conclude that it means talking about nothing in a slightly annoyed, exasperated tone. And if you watch Sarah Silverman, you might think to yourself, no, it's being caustic, blunt, and rude

in an incongruously affectless way. At this point you may begin to perceive the truth that "funny" is inherent to the person.

Watch an NBA game, and you may think to yourself, "Yes, most of them are tall and athletic, but boy, not only does each player have a different role on the team, but even the players in the same role on the same team seem to do it differently." Examine something as specific and as limited as the free throws awarded after fouls, and you'll learn that not only do the top two free-throw shooters in history have utterly different styles, but one of them, Rick Barry—the best ever on the day he retired (look him up)—didn't even throw overhand.

Excellence seems to be inextricably and wonderfully intertwined with whoever demonstrates it. Each person's version of it is uniquely shaped and is an expression of that person's individuality. Which means that, for each of us, excellence is easy, in that it is a natural, fluid, and intelligent expression of our best extremes. It can be cultivated, but it's unforced.

Excellence is also not the opposite of failure. But in virtually all aspects of human endeavor, people assume that it is and that if they study what leads to pathological functioning and do the reverse—or replace what they found missing—they can create optimal functioning. That assumption is flawed. Study disease and you will learn a lot about disease and precious little about health. Eradicating depression will get you no closer to joy. Divorce is mute on the topic of happy marriage. Exit

interviews with employees who leave tell you nothing about why others stay. If you study failure, you'll learn a lot about failure but nothing about how to achieve excellence. Excellence has its own pattern.

And it's even more problematic than that. Excellence and failure often have a lot in common. So if you study ineffective leaders and observe that they have big egos, and then argue that good leaders should not have big egos, you will lead people astray. Why? Because when you do personality assessments with highly effective leaders, you discover that they have very strong egos as well. Telling someone that you must lose your ego to be a good leader is flawed advice. Likewise, if you study poor salespeople, discover that they take rejection personally, and then tell a budding salesperson to avoid doing the same, your advice will be misguided. Why? Because rigorous studies of the best salespeople reveal that they take rejection deeply personally, too.

As it happens, you find that effective leaders put their egos in the service of others, not themselves, and that effective salespeople take rejection personally because they are personally invested in the sale—but the point is that you will never find these things out by studying *ineffective* performance.

Since excellence is idiosyncratic and cannot be learned by studying failure, we can never help another person succeed by holding her performance up against a prefabricated model of excellence, giving her feedback on where she misses the model,

and telling her to plug the gaps. That approach will only ever get her to adequate performance. Point out the grammatical flaws in an essay, ask the writer to fix the flaws, and while you may get an essay with good grammar, you won't get a piece of writing that transports the reader. Show a new teacher when her students lost interest and tell her what to do to fix this, and while you may now have a teacher whose students don't fall asleep in class, you won't have one whose students necessarily learn any more.

How to Help People Excel

If we continue to spend our time identifying failure as we see it and giving people feedback about how to avoid it, we'll languish in the business of adequacy. To get into the excellence business we need some new techniques:

Look for outcomes

Excellence is an outcome, so take note of when a prospect leans into a sales pitch, a project runs smoothly, or an angry customer suddenly calms down. Then turn to the team member who created the outcome and say, "That! Yes, that!" By doing this, you'll stop the flow of work for a moment and pull your colleague's attention back toward something she just did that really worked.

There's a story about how legendary Dallas Cowboys coach Tom Landry turned around his struggling team. While the

other teams were reviewing missed tackles and dropped balls, Landry instead combed through footage of previous games and created for each player a highlight reel of when he had done something easily, naturally, and effectively. Landry reasoned that while the number of wrong ways to do something was infinite, the number of right ways, for any particular player, was not. It was knowable, and the best way to discover it was to look at plays where that person had done it excellently. From now on, he told each team member, "we only replay your winning plays."

The Right Way to Help Colleagues Excel

IF YOU WANT to get into the excellence business, here are some examples of language to try.

Instead of	Try
Can I give you some feedback?	Here's my reaction.
Good job!	Here are three things that really worked for me. What was going through your mind when you did them?
Here's what you should do.	Here's what I would do.
Here's where you need to improve.	Here's what worked best for me, and here's why.

That didn't really work.	When you did *x*, I felt *y* or I didn't get that.
You need to improve your communication skills.	Here's exactly where you started to lose me.
You need to be more responsive.	When I don't hear from you, I worry that we're not on the same page.
You lack strategic thinking.	I'm struggling to understand your plan.
You should do *x* [in response to a request for advice].	What do you feel you're struggling with, and what have you done in the past that's worked in a similar situation?

Now on one level he was doing this to make his team members feel better about themselves because he knew the power of praise. But according to the story, Landry wasn't nearly as interested in praise as he was in learning. His instincts told him that each person would improve his performance most if he could see, in slow motion, what his own personal version of excellence looked like.

You can do the same. Whenever you see one of your people do something that worked for you, that rocked your world just a little, stop for a minute and highlight it. By helping your team member recognize what excellence looks like for her—by saying, "That! Yes, that!"—you're offering her the chance to gain an insight; you're highlighting a pattern that is already there within her so that she can recognize it, anchor it, re-create it, and refine it. That is learning.

Replay your instinctive reactions

Unlike Landry, you're not going to be able to videotape your people. Instead, learn how to replay to them your own personal reactions. The key is not to tell someone how well she's performed or how good she is. While simple praise isn't a bad thing, you are by no means the authority on what objectively good performance is, and instinctively she knows this. Instead, describe what you experienced when her moment of excellence caught your attention. There's nothing more believable and more authoritative than sharing what you saw from her and how it made you feel. Use phrases such as "This is how that came across for me," or "This is what that made me think," or even just "Did you see what you did there?" Those are your reactions—they are your truth—and when you relay them in specific detail, you aren't judging or rating or fixing her; you're simply reflecting to her the unique "dent" she just made in the world, as seen through your eyes. And precisely because it isn't a judgment or a rating, it is at once more humble and more powerful.

On the flip side, if you're the team member, whenever your team leader catches you doing something right, ask her to pause and describe her reaction to you. If she says, "Good job!" ask, "Which bit? What did you see that seemed to work well?" Again, the point of this isn't to pile on the praise. The point is to explore the nature of excellence, and this is surely a better object for all the energy currently being pointed at "radical

transparency" and the like. We're so close to our own performance that it's hard to get perspective on it and see its patterns and components. Ask for your leader's help in rendering the unconscious, conscious—so that you can understand it, improve at it, and, most important, do it again.

Never lose sight of your highest-priority interrupt

In computing, a high-priority interrupt happens when something requires a computer processor's immediate attention, and the machine halts normal operations and jumps the urgent issue to the head of the processing queue. Like computer processors, team leaders have quite a few things that demand their attention and force them to act. Many of them are problems. If you see something go off the rails—a poorly handled call, a missed meeting, a project gone awry—the instinct will kick in to stop everything to tell someone what she did wrong and what she needs to do to fix it. This instinct is by no means misguided: If your team member screws something up, you have to deal with it. But remember that when you do, you're merely remediating—and that remediating not only inhibits learning but also gets you no closer to excellent performance. As we've seen, conjuring excellence from your team members requires a different focus from you. If you see somebody doing something that really works, stopping her and dissecting it with her isn't only a high-priority interrupt, it is your *highest*-priority interrupt. As you replay each small

moment of excellence to your team member, you'll ease her into the "rest and digest" state of mind. Her understanding of what excellence looks and feels like within her will become more vivid, her brain will become more receptive to new information and will make connections to other inputs found in other regions of her brain, and she will learn and grow and get better.

Explore the present, past, and future

When people come to you asking for feedback on their performance or what they might need to fix to get promoted, try this:

Start with the *present*. If a team member approaches you with a problem, he's dealing with it *now*. He's feeling weak or challenged, and you have to address that. But rather than tackling the problem head-on, ask your colleague to tell you three things that are working for him *right now*. These things might be related to the situation or entirely separate. They might be significant or trivial. Just ask the question, and you're priming him with oxytocin—which is sometimes called the "love drug" but which here is better thought of as the "creativity drug." Getting him to think about specific things that are going well will alter his brain chemistry so that he can be open to new solutions and new ways of thinking or acting.

Next, go to the *past*. Ask him, "When you had a problem like this in the past, what did you do that worked?" Much of our

life happens in patterns, so it's highly likely that he has encountered this problem at least a few times before. On one of those occasions he will almost certainly have found some way forward, some action or insight or connection that enabled him to move out of the mess. Get him thinking about that and seeing it in his mind's eye: what he actually felt and did, and what happened next.

Finally, turn to the *future*. Ask your team member, "What do you already know you need to do? What do you already know works in this situation?" By all means offer up one or two of your own experiences to see if they might clarify his own. But operate under the assumption that he already knows the solution—you're just helping him recognize it.

The emphasis here should not be on whys—"Why didn't that work?" "Why do you think you should do that?"—because those lead both of you into a fuzzy world of conjecture and concepts. Instead, focus on the whats—"What do you actually want to have happen?" "What are a couple of actions you could take right now?" These sorts of questions yield concrete answers, in which your colleague can find his actual self doing actual things in the near-term future.

How to give people feedback is one of the hottest topics in business today. The arguments for radical candor and unvarnished and pervasive transparency have a swagger to

them, almost as if to imply that only the finest and bravest of us can face these truths with nerveless self-assurance, that those of us who recoil at the thought of working in a climate of continual judgment are condemned to mediocrity, and that as leaders our ability to look our colleagues squarely in the eye and lay out their faults without blinking is a measure of our integrity.

But at best, this fetish with feedback is good only for correcting mistakes—in the rare cases where the right steps are known and can be evaluated objectively. And at worst, it's toxic, because what we want from our people—and from ourselves—is not, for the most part, tidy adherence to a procedure agreed upon in advance or, for that matter, the ability to expose one another's flaws. It's that people contribute their own unique and growing talents to a common good, when that good is ever-evolving, when we are, for all the right reasons, making it up as we go along. Feedback has nothing to offer to that.

We humans do not do well when someone whose intentions are unclear tells us where we stand, how good we "really" are, and what we must do to fix ourselves. We excel *only* when people who know us and care about us tell us what they experience and what they feel, and in particular when they see something within us that really works.

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The Leader as Coach

by Herminia Ibarra and Anne Scoular

ONCE UPON A TIME, MOST PEOPLE began successful careers by developing expertise in a technical, functional, or professional domain. Doing your job well meant having the right answers. If you could prove yourself that way, you'd rise up the ladder and eventually move into people management—at which point you had to ensure that your subordinates had those same answers.

As a manager, you knew what needed to be done, you taught others how to do it, and you evaluated their performance. Command and control was the name of the game, and your goal was to direct and develop employees who understood how the business worked and were able to reproduce its previous successes.

Not today. Rapid, constant, and disruptive change is now the norm, and what succeeded in the past is no longer a guide to what will succeed in the future. Twenty-first-century managers simply don't (and can't!) have all the right answers. To cope with this new reality, companies are moving away from traditional command-and-control practices and toward something very

different: a model in which managers give support and guidance rather than instructions, and employees learn how to adapt to constantly changing environments in ways that unleash fresh energy, innovation, and commitment.

The role of the manager, in short, is becoming that of a coach.

This is a dramatic and fundamental shift, and we've observed it firsthand. Over the past decade, we've seen it in our ongoing research on how organizations are transforming themselves for the digital age; we've discerned it from what our executive students and coaching clients have told us about the leadership skills they want to cultivate in themselves and throughout their firms; and we've noticed that more and more of the companies we work with are investing in training their leaders as coaches. Increasingly, coaching is becoming integral to the fabric of a learning culture—a skill that good managers at all levels need to develop and deploy.

We should note that when we talk about coaching, we mean something broader than just the efforts of consultants who are hired to help executives build their personal and professional skills. That work is important and sometimes vital, but it's temporary and executed by outsiders. The coaching we're talking about—the kind that creates a true learning organization—is ongoing and executed by those inside the organization. It's work that all managers should engage in with all their people all the time, in ways that help define the organization's culture and advance its mission. An effective manager-as-coach asks

questions instead of providing answers, supports employees instead of judging them, and facilitates their development instead of dictating what has to be done.

This conception of coaching represents an evolution. Coaching is no longer just a benevolent form of sharing what you know with somebody less experienced or less senior, although that remains a valuable aspect. It's also a way of asking questions so as to spark insights in the other person. As Sir John Whitmore, a leading figure in the field, defined it, skilled coaching involves "unlocking people's potential to maximize their own performance." The best practitioners have mastered both parts of the process—imparting knowledge and helping others discover it themselves—and they can artfully do both in different situations.

It's one thing to aspire to that kind of coaching, but it's another to make it happen as an everyday practice throughout the many layers of an organization. At most firms, a big gap still yawns between aspiration and practice—and we've written this article to help readers bridge it. We focus first on how to develop coaching as an individual managerial capacity, and then on how to make it an organizational one.

Idea in Brief

The Situation

To cope with disruptive change, companies are reinventing themselves as learning organizations. This requires a new approach to management in which leaders serve as coaches to those they supervise.

The Challenge

In this new approach, managers ask questions instead of providing answers, support employees instead of judging them, and facilitate their development instead of dictating what has to be done. But most managers don't feel they have time for that—and they're not very good at it anyway.

The Solution

Companies need to offer their managers the appropriate tools and support to become better coaches. And if they want to be sustainably healthy learning organizations, they must also develop coaching as an organizational capacity.

You're Not as Good as You Think

For leaders who are accustomed to tackling performance problems by telling people what to do, a coaching approach often feels too "soft." What's more, it can make them psychologically uncomfortable, because it deprives them of their most familiar management tool: asserting their authority. So they resist coaching—and left to their own devices, they may not even give it a try. "I'm too busy," they'll say, or "This isn't the best use of my time," or "The people I'm saddled with aren't coachable." In Daniel Goleman's classic study of leadership styles, published in HBR in 2000, leaders ranked coaching as their least-favorite style, saying they simply didn't have time for the slow and tedious work of teaching people and helping them grow.

Even if many managers are unenthusiastic about coaching, most think they're pretty good at it. But a lot of them are not. In one study, 3,761 executives assessed their own coaching skills, and then their assessments were compared with those of people who worked with them. The results didn't align well. Twenty-four percent of the executives significantly overestimated their abilities, rating themselves as above average while their colleagues ranked them in the bottom third of the group. That's a telling mismatch. "If you think you're a good coach but you actually aren't," the authors of the study wrote, "this data suggests you may be a good deal worse than you imagined."

Coaching well can be hard for even the most competent and well-meaning of managers. One of us (Herminia) teaches a class to executives that makes this clear year after year. The executives are given a case study and asked to play the role of a manager who must decide whether to fire or coach a direct report who is not performing up to par. The employee has made obvious errors of judgment, but the manager has contributed significantly to the problem by having alternately ignored and micromanaged him.

When presented with this scenario, nine out of 10 executives decide they want to help their direct report do better. But when they're asked to role-play a coaching conversation with him, they demonstrate much room for improvement. They know what they're supposed to do: "ask and listen," not "tell and sell." But that doesn't come naturally, because deep down they've

already made up their minds about the right way forward, usually before they even begin talking to the employee. So their efforts to coach typically consist of just trying to get agreement on what they've already decided. That's not real coaching—and not surprisingly, it doesn't play out well.

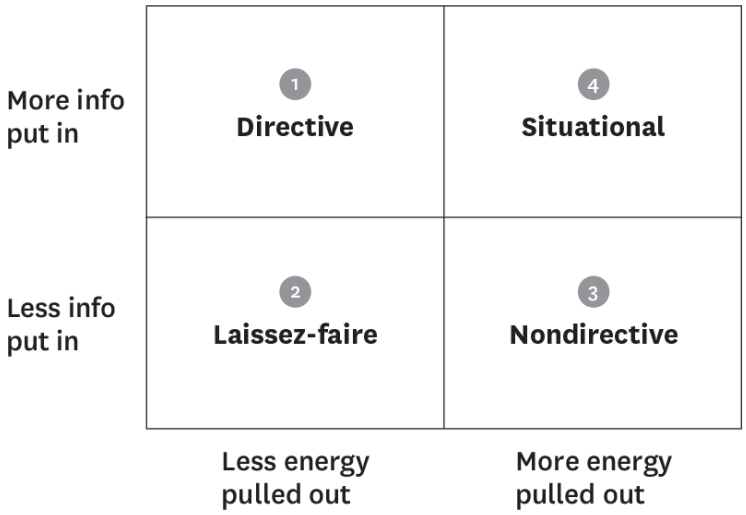
Here's roughly how these conversations unfold. The executives begin with an open-ended question, such as "How do you think things are going?" This invariably elicits an answer very different from what they expected. So they reformulate the question, but this, too, fails to evoke the desired response. With some frustration, they start asking leading questions, such as "Don't you think your personal style would be a better fit in a different role?" This makes the direct report defensive, and he becomes even less likely to give the hoped-for answer. Eventually, feeling that the conversation is going nowhere, the executives switch into "tell" mode to get their conclusion across. At the end of the exercise, no one has learned anything about the situation or themselves.

Sound familiar? This kind of "coaching" is all too common, and it holds companies back in their attempts to become learning organizations. The good news, though, is that with the right tools and support, a sound method, and lots of practice and feedback, almost anybody can become a better coach.

Different Ways of Helping

To get managers thinking about the nature of coaching, and specifically how to do it better in the context of a learning organization, we like to present them with the 2x2 matrix in the exhibit "Styles of coaching." It's a simple but useful tool. One axis shows the information, advice, or expertise that a coach *puts in* to the relationship with the person being coached; the other shows the motivational energy that a coach *pulls out* by unlocking that person's own insights and solutions.

Styles of coaching



At the upper left, in quadrant 1, is *directive coaching,* which takes place primarily through "telling." Mentoring falls into this category. Everybody knows what to expect here: A manager with years of accumulated knowledge willingly shares it with a junior team member, and that person listens carefully, hoping to absorb as much knowledge as possible. This approach has a lot to

recommend it, but it has some downsides too. Because it consists of stating what to do and how to do it, it unleashes little energy in the person being coached; indeed, it may even depress her energy level and motivation. It also assumes that the boss knows things that the recipient of the coaching does not—not always a safe assumption in a complex and constantly changing work environment. Additionally, because it allows leaders to continue doing what they have always excelled at (solving other people's problems), it does not build organizational capacity well.

That said, coaching is not always the answer. There may be times when all team members are productively getting on with their work, and the right approach to managing them is to leave them alone. This approach, which we call *laissez-faire*, appears in quadrant 2.

At the bottom right, in quadrant 3, is *nondirective coaching*, which is built on listening, questioning, and withholding judgment. Managers here work to draw wisdom, insight, and creativity out of the people they're coaching, with the goal of helping them learn to resolve problems and cope with challenging situations on their own. It's an approach that can be highly energizing for those being coached, but it doesn't come naturally to most managers, who tend to be more comfortable in "tell" mode.

At the top right, in quadrant 4, is *situational coaching*, which represents the sweet spot in our framework. All managers in a

learning organization should aspire to become expert at situational coaching—which, as its name suggests, involves striking a fine balance between directive and nondirective styles according to the specific needs of the moment. From our work with experienced executives, we've concluded that managers should first practice nondirective coaching a lot on its own, until it becomes almost second nature, and only then start to balance that newly strengthened ability with periods of helpful directive coaching.

The GROW Model

One of the best ways to get better at nondirective coaching is to try conversing using the GROW model, devised in the 1980s by Sir John Whitmore and others. GROW involves four action steps, the first letters of which give the model its name. It's easy to grasp conceptually, but it's harder to practice than you might imagine, because it requires training yourself to think in new ways about what your role and value are as a leader. The four action steps are these:

Goal

When you begin discussing a topic with someone you're coaching, establish exactly what he wants to accomplish *right now.* Not what his goals are for the project or his job or his role in the organization, but what he hopes to get out of this particular exchange. People don't do this organically in most

conversations, and they often need help with it. A good way to start is to ask something like “What do you want when you walk out the door that you don’t have now?”

Reality

With the goal of your conversation established, ask questions rooted in *what, when, where*, and *who*, each of which forces people to come down out of the clouds and focus on specific facts. This makes the conversation real and constructive. You’ll notice that we didn’t include *why.* That’s because asking why demands that people explore reasons and motivations rather than facts. In doing that, it can carry overtones of judgment or trigger attempts at self-justification, both of which can be counterproductive.

During this stage, a good reality-focused question to ask is “What are the key things we need to know?” Attend carefully to how people respond. Are they missing something important? Are they talking about operational issues but forgetting the human side of the equation? Or the reverse? When you ask people to slow down and think in this way, they often lose themselves in contemplation—and then a light comes on, and off they go, engaging with the problem on their own with new energy and a fresh perspective. This step is critical, because it stops people from overlooking pertinent variables and leaping to conclusions. Your job here is just to raise the right questions and then get out of the way.

Coaching 101

Start with a few basic steps.

Assess the Situation

Decide what kind of coaching is necessary. Full situational coaching—balancing directive and nondirective coaching moment by moment—isn't always the answer. There will always be scenarios in which people simply need to be told what to do. At other times—if, say, they're struggling with deeply important career decisions—it might be appropriate to offer nondirective coaching but nothing more. It's also possible that your people don't need any coaching right now but would really value an ear later. Ask them.

Listen

Here's a good rule of thumb for most situations: Shut up and listen. Absorb what people tell you, and be alert to what their tone of voice and body language convey. Don't respond as you usually might; instead, listen just to understand. Occasionally repeat back what you hear, to make sure you have it right, but avoid jumping in. Leave room for silence, especially at the end of your conversation. The most important things often emerge from that silence.

Ask Open-Ended Questions

Yes/no questions shut down thinking. Open-ended ones expand it. The coaching thought leader Nancy Kline uses a provocative one that goes roughly like this: "What do you already know, without being aware of it, that you will find out in a year?" But the questions don't have to be complex or clever. Sometimes the simplest—such as "What else?"—are the best. What's vital is that they demonstrate your authentic interest and belief in the person you are coaching. That's something to work hard on, even if the person's performance to date has you doubtful. If you can sincerely suspend judgment, you may be surprised!

Practice Nondirective Coaching

Practice makes perfect. Try nondirective coaching outside of work—perhaps in some pro bono or other extracurricular role. Practice it in a disciplined, sustained way until you have confidence you're doing it well. You'll know you're getting good when the people you're talking with start to have "Aha!" moments or thank you profusely even though you feel you didn't tell them anything.

Options

When people come to you for coaching, they often feel stuck. "There's nothing I can do," they might tell you. Or "I have only one real option." Or "I'm torn between A and B."

At this point your task is to help them think more broadly and more deeply. To broaden the conversation, sometimes it's enough to ask something as simple as "If you had a magic wand, what would you do?" You'd be surprised how freeing many people find that question to be—and how quickly they then start thinking in fresh, productive ways. Once they've broadened their perspective and discovered new options, your job is to prompt them to deepen their thinking, perhaps by encouraging them to explore the upside, the downside, and the risks of each option.

Will

This step also doesn't usually happen organically in conversations, so again most people will need help with it. The step actually has two parts, each involving a different sense of the word *will*.

In the first part you ask, “What will you do?” This encourages the person you’re coaching to review the specific action plan that has emerged from your conversation. If the conversation has gone well, she’ll have a clear sense of what that plan is. If she doesn’t, you’ll need to cycle back through the earlier steps of the GROW process and help her define how she’ll attack the problem.

The second part involves asking people about their will to act. “On a scale of one to 10,” you might ask, “how likely is it that you will do this?” If they respond with an eight or higher, they’re probably motivated enough to follow through. If the answer is seven or less, they probably won’t. In that case you’ll again need to cycle back through the earlier steps of the process, in an effort to arrive at a solution they are more likely to act on.

Of course, workplace coaching usually takes place outside of formal coaching sessions. Most often, it happens in brief exchanges, when a manager might respond to a request for help by posing a single question, such as “What have you already thought of?” or “What really matters here?” When more of those interactions occur—when you notice your managers growing increasingly inquisitive, asking good questions, and working from the premise that they don’t have all the answers—you’ll know you’re on the right track.

Coaching as an Organizational Capacity

So far, we've focused on coaching as a managerial skill. That's a vital first step, but to transform your company into a genuine learning organization, you need to do more than teach individual leaders and managers how to coach better. You also need to make coaching an organizational capacity that fits integrally within your company culture. And to succeed at that, you must effect a cultural transformation that involves the following steps.

Articulate the "why"

Managers and professionals are busy people. If coaching strikes them as simply the latest fad being pushed by HR, they will roll their eyes and comply with the requirements as minimally as possible. If you want them to embrace coaching as not just a personal skill but also a source of cultural strength, you'll have to make clear why it's valuable for the business and their own success.

A good "why" inevitably connects coaching to an organization's mission-critical tasks. Consider the example of the international law firm Allen & Overy. When David Morley, then the senior partner, decided to make coaching a key part of the firm's leadership culture, he began talking with his colleagues about the importance of high-value conversations. Morley is an alumnus of one of our (Anne's) leadership coach trainings. "My pitch," he told us, "was this: 'As a senior leader, you have roughly 100 conversations a year that are of particularly high value—in the sense that they will change your life or the life of

the person you're talking to. We want to help you acquire the skills to maximize value in those 100 conversations, to unlock previously hidden issues, to uncover new options, and to reveal fresh insights.' That resonated. Almost everybody in a key leadership position at the firm recognized that they struggled with how to make the most of those conversations, and they could readily see that they lacked skills."

Articulating the "why" can also involve helping people see the collateral benefits of coaching. That's what worked at the Berkeley Partnership, an international management consultancy, where many partners who have received our training in coaching tell us it has significantly enhanced their ability to serve their clients. According to Mark Fearn, one of the firm's founders, Berkeley partners are now better equipped to respond when clients ask for assistance with big, messy, sometimes ill-defined problems that often extend far beyond the firm's initial brief. Having developed their coaching skills, partners have become better at recognizing situations in which they don't have to provide answers; they understand that in such cases, they may be able to offer more value by listening attentively, asking the right questions, and supporting clients as they work out the best solution. "Now that we've added coaching expertise," Fearn told us, "our task can sometimes be just digging the answer out of them, creating a space to think."

Model the behavior

If you want the people you work with to embrace coaching, you first need to embrace it yourself.

Nobody has done this better than Satya Nadella, the CEO of Microsoft. As noted in a London Business School case study that Herminia cowrote, when Nadella took the reins, in 2014, he was only the third chief executive in the company's four-decade history. During the 14-year tenure of his predecessor, Steve Ballmer, revenue had tripled and profits had doubled, but by the end of that time, the company had lost its momentum. A culture of inspection and judgment prevailed, and the managerial mindset was fixed: Managers evaluated direct reports according to how well they mastered skills and generated numbers that would allow them to reproduce the successes of the past.

This culture had contributed significantly to Microsoft's remarkable run of dominance in the world of personal computing. But as the energy in the tech sector shifted to smartphones and the cloud, the old management practices began to impede progress. By the time Nadella took over, risk aversion and internal politics were hampering cross-divisional collaboration, senior leaders were resisting open-source innovation, and the company's stock price had stalled. Additionally, technologies were changing so quickly that managers often had out-of-date knowledge and practices, but they kept passing these down because that's what they knew how to do.

Further Reading

Coaching Advice

- "Coaching for Change," Richard Boyatzis, Melvin Smith, and Ellen Van Oosten, HBR, September–October 2019
- "Every Manager Needs to Practice Two Types of Coaching," Dick Grote, HBR.org, September 30, 2016
- "4 Reasons Managers Should Spend More Time on Coaching," Joseph R. Weintraub and James M. Hunt, HBR.org, May 29, 2015
- "Overcoming the Toughest Common Coaching Challenges," Amy Gallo, HBR.org, April 15, 2015

Coaching Theory

- *Coaching for Performance: The Principles and Practice of Coaching and Leadership*, Sir John Whitmore and Performance Consultants International, Nicholas Brealey, 2017 (fully revised 25th-anniversary edition)
- *Time to Think: Listening to Ignite the Human Mind*, Nancy Kline, Cassell Illustrated, 1999
- *Humble Inquiry: The Gentle Art of Asking Instead of Telling*, Edgar H. Schein, Berrett-Koehler, 2013

Nadella quickly realized that Microsoft needed a cultural transformation. To regain its momentum and assert itself as a force in this new landscape, the company had to move away

from its entrenched managerial style and instead develop what the Stanford psychologist Carol Dweck has called a growth mindset, in which everybody in the organization was open to constant learning and risk-taking. As Nadella himself aptly put it, the leaders of the company had to shift from being know-it-alls to being "learn-it-alls."

Nadella understood that the process had to start with him, so he began modeling the behaviors he wanted Microsoft's managers to adopt. He solicited thoughts from everybody he talked to and listened empathetically to what they had to say. He asked nondirective questions, demonstrating that his role was to support rather than judge. He encouraged people to be open about their mistakes and to learn from them. "He's with you," said Jean-Phillipe Courtois, a member of his leadership team. "You can feel it. You can see the body language. It doesn't matter if you're a top executive or a firstline seller; he has exactly the same quality of listening."

Modeling is powerful because it shows that a leader walks the talk. Moreover, it builds momentum. Researchers have found that when people are in doubt about what behavior is appropriate, they copy the actions of others—particularly those who have power and status. So it's not surprising that in these times of rapid change, which inevitably bring business uncertainty, employees look to their leaders for cues to follow. If they notice that their leaders are working to foster learning and

cultivate the delicate art of leadership as conversation, they will do likewise.

Build capability throughout the organization

After Nadella became Microsoft's CEO, the corporate climate changed and the company's performance surged. But Nadella was not single-handedly responsible. With more than 130,000 employees, he depended on the members of his leadership team to tailor the growth mindset to the unique requirements of their individual businesses. For Courtois—who in 2016 assumed control of Microsoft's global sales, marketing, and operations—that meant transforming the culture from one of command and control to one of coaching.

Herminia has studied Microsoft's revival in depth, so we have a clear understanding of how things unfolded. Courtois recognized that the "why" of the shift to coaching was Microsoft's move to a cloud-first strategy. The fundamental economics of cloud computing are based on the premise that customers will pay only for the resources they use (how long a server is utilized, say, or how much data bandwidth is being consumed). With revenue growth now depending more heavily on consumption of Microsoft's offerings, everyone at the company had to become adept at having conversations in which they could learn what they did not already know—how to serve the unmet needs of their customers. And with the availability of powerful digital tools that provided everyone with real-time data on key metrics, it no longer made sense for managers to

spend their time monitoring and controlling employees. So, after a restructuring effort aimed at giving Microsoft's sales teams the right technical and industry skills to accompany corporate customers as they moved to the cloud, Courtois followed up with workshops, tools, and an online course designed to help the company's managers develop a coaching style of leadership.

"If we want to get the transformation all the way through the organization," he told us, "our biggest challenge is to reboot our people managers. 'People manager' is a job. You're not just a sales manager, where you have a quota, a territory, customers, partners, and goals to achieve. You're actually someone whose mission it is to pick, grow, and motivate the best capabilities to build customer success."

Remove the barriers

As in many organizations, managerial life at Microsoft had a rhythm dictated by quarterly business reviews. One of those, an annual gathering known as the January midyear review, was one of the most visible manifestations of the command-and-control culture.

Over time, the midyear review had developed into a kind of corporate theater in which the C-suite team, adopting an interrogatory stance, would grill senior managers from around the world on their progress and plans. This format of "precision questioning" ended up having "a fear impact on people," said one executive, "because they felt like they were going into that meeting to be judged personally. So they felt they had to paint

the best picture they could without showing any mistakes or failures." Stories abounded of senior managers anxiously beginning their preparation well before the December holiday period. In other words, to make a good impression, a raft of the company's most valuable people were diverting more than a month of their time to preparing for an internal review.

As part of the shift to a learning culture, Courtois had already encouraged his team to abandon precision questioning in favor of a more coaching-oriented approach that involved asking questions such as "What are you trying to do?" "What's working?" "What's not working?" and "How can we help?" But old habits die hard. Only after Courtois eliminated the midyear review—thereby removing a significant barrier to change—did everybody understand that he meant business.

Something similar happened at Allen & Overy, where year-end appraisals and rankings had become a largely unproductive ritual. In its push to become a learning organization, the firm recognized that these exercises were a deterrent to the kinds of open and supportive conversations that employees needed both to develop professionally and to advance the organization's mission. It therefore abandoned that performance review system and now trains its partners to engage year-round in coaching conversations with associates, providing them with real-time feedback on their work. Employees report that these conversations create a new and useful level of dialogue about their career development. And once again, there are collateral

benefits. Although the program was designed for internal use, it has made the organization's senior leaders more comfortable in conducting unstructured conversations in other contexts, especially during high-stakes client negotiations—and that, in turn, has led to higher revenue and deeper client relationships.

We live in a world of flux. Successful executives must increasingly supplement their industry and functional expertise with a general capacity for learning—and they must develop that capacity in the people they supervise. No longer can managers simply command and control. Nor will they succeed by rewarding team members mainly for executing flawlessly on things they already know how to do. Instead, with full institutional support, they need to reinvent themselves as coaches whose job it is to draw energy, creativity, and learning out of the people with whom they work.

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Strategies for Learning from Failure

by Amy C. Edmondson

THE WISDOM OF LEARNING from failure is incontrovertible. Yet organizations that do it well are extraordinarily rare. This gap is not due to a lack of commitment to learning. Managers in the vast majority of enterprises that I have studied over the past 20 years—pharmaceutical, financial services, product design, telecommunications, and construction companies; hospitals; and NASA's space shuttle program, among others—genuinely wanted to help their organizations learn from failures to improve future performance. In some cases they and their teams had devoted many hours to after-action reviews, postmortems, and the like. But time after time I saw that these painstaking efforts led to no real change. The reason: Those managers were thinking about failure the wrong way.

Most executives I've talked to believe that failure is bad (of course!). They also believe that learning from it is pretty straightforward: Ask people to reflect on what they did wrong and exhort them to avoid similar mistakes in the future—or,

better yet, assign a team to review and write a report on what happened and then distribute it throughout the organization.

These widely held beliefs are misguided. First, failure is not always bad. In organizational life it is sometimes bad, sometimes inevitable, and sometimes even good. Second, learning from organizational failures is anything but straightforward. The attitudes and activities required to effectively detect and analyze failures are in short supply in most companies, and the need for context-specific learning strategies is underappreciated. Organizations need new and better ways to go beyond lessons that are superficial ("Procedures weren't followed") or self-serving ("The market just wasn't ready for our great new product"). That means jettisoning old cultural beliefs and stereotypical notions of success and embracing failure's lessons. Leaders can begin by understanding how the blame game gets in the way.

The Blame Game

Failure and fault are virtually inseparable in most households, organizations, and cultures. Every child learns at some point that admitting failure means taking the blame. That is why so few organizations have shifted to a culture of psychological safety in which the rewards of learning from failure can be fully realized.

Executives I've interviewed in organizations as different as hospitals and investment banks admit to being torn: How can they respond constructively to failures without giving rise to an anything-goes attitude? If people aren't blamed for failures, what will ensure that they try as hard as possible to do their best work?

This concern is based on a false dichotomy. In actuality, a culture that makes it safe to admit and report on failure can—and in some organizational contexts *must*—coexist with high standards for performance. To understand why, look at the exhibit "A Spectrum of Reasons for Failure," which lists causes ranging from deliberate deviation to thoughtful experimentation.

A Spectrum of Reasons for Failure

BLAMEWORTHY

- **Deviance.** An individual chooses to violate a prescribed process or practice.
- **Inattention.** An individual inadvertently deviates from specifications.
- **Lack of ability.** An individual doesn't have the skills, conditions, or training to execute a job.
- **Process inadequacy.** A competent individual adheres to a prescribed but faulty or incomplete process.
- **Task challenge.** An individual faces a task too difficult to be executed reliably every time.
- **Process complexity.** A process composed of many elements breaks down when it encounters novel interactions.
- **Uncertainty.** A lack of clarity about future events causes people to take seemingly reasonable actions that produce undesired results.
- **Hypothesis testing.** An experiment conducted to prove that an idea or a design will succeed fails.
- **Exploratory testing.** An experiment conducted to expand knowledge and investigate a possibility leads to an undesired result.

PRAISEWORTHY

Which of these causes involve blameworthy actions? Deliberate deviance, first on the list, obviously warrants blame. But inattention might not. If it results from a lack of effort, perhaps it's blameworthy. But if it results from fatigue near the end of an overly long shift, the manager who assigned the shift is more at fault than the employee. As we go down the list, it gets more and more difficult to find blameworthy acts. In fact, a failure resulting from thoughtful experimentation that generates valuable information may actually be praiseworthy.

Idea in Brief

The ingrained attitude that all failures are bad means organizations don't learn from them.

Leaders need to recognize that failures occur on a spectrum from blameworthy to praiseworthy, and that they fall into three categories:

- Failures in routine or predictable operations, which can be prevented
- Those in complex operations, which can't be avoided but can be managed so that they don't mushroom into catastrophes
- Unwanted outcomes in, for example, research settings, which are valuable because they generate knowledge

Although learning from failures requires different strategies in different work settings, the goal should be to detect them early, analyze them deeply, and design experiments or pilot projects to produce them. But if the organization is ultimately to succeed, employees must feel safe admitting to and reporting failures. Creating that environment takes strong leadership.

When I ask executives to consider this spectrum and then to estimate how many of the failures in their organizations are truly blameworthy, their answers are usually in single digits—perhaps 2% to 5%. But when I ask how many are *treated* as blameworthy, they say (after a pause or a laugh) 70% to 90%. The unfortunate consequence is that many failures go unreported and their lessons are lost.

Not All Failures Are Created Equal

A sophisticated understanding of failure's causes and contexts will help to avoid the blame game and institute an effective strategy for learning from failure. Although an infinite number of things can go wrong in organizations, mistakes fall into three broad categories: preventable, complexity-related, and intelligent.

Preventable failures in predictable operations

Most failures in this category can indeed be considered "bad." They usually involve deviations from spec in the closely defined processes of high-volume or routine operations in manufacturing and services. With proper training and support, employees can follow those processes consistently. When they don't, deviance, inattention, or lack of ability is usually the reason. But in such cases, the causes can be readily identified and solutions developed. Checklists (as in the Harvard surgeon Atul Gawande's recent bestseller *The Checklist Manifesto*) are one solution. Another is the vaunted Toyota Production System, which builds continual learning from tiny failures (small process deviations) into its approach to improvement. As most students of operations know well, a team member on a Toyota assembly line who spots a problem or even a potential problem is encouraged to pull a rope called the andon cord, which immediately initiates a diagnostic and problem-solving process. Production continues unimpeded if the problem can

be remedied in less than a minute. Otherwise, production is halted—despite the loss of revenue entailed—until the failure is understood and resolved.

Unavoidable failures in complex systems

A large number of organizational failures are due to the inherent uncertainty of work: A particular combination of needs, people, and problems may have never occurred before. Triaging patients in a hospital emergency room, responding to enemy actions on the battlefield, and running a fast-growing startup all occur in unpredictable situations. And in complex organizations like aircraft carriers and nuclear power plants, system failure is a perpetual risk.

Although serious failures can be averted by following best practices for safety and risk management, including a thorough analysis of any such events that do occur, small process failures are inevitable. To consider them bad is not just a misunderstanding of how complex systems work; it is counterproductive. Avoiding consequential failures means rapidly identifying and correcting small failures. Most accidents in hospitals result from a series of small failures that went unnoticed and unfortunately lined up in just the wrong way.

Intelligent failures at the frontier

Failures in this category can rightly be considered “good,” because they provide valuable new knowledge that can help an

organization leap ahead of the competition and ensure its future growth—which is why the Duke University professor of management Sim Sitkin calls them intelligent failures. They occur when experimentation is necessary: when answers are not knowable in advance because this exact situation hasn't been encountered before and perhaps never will be again. Discovering new drugs, creating a radically new business, designing an innovative product, and testing customer reactions in a brand-new market are tasks that require intelligent failures. "Trial and error" is a common term for the kind of experimentation needed in these settings, but it is a misnomer, because "error" implies that there was a "right" outcome in the first place. At the frontier, the right kind of experimentation produces good failures quickly. Managers who practice it can avoid the *unintelligent* failure of conducting experiments at a larger scale than necessary.

Leaders of the product design firm IDEO understood this when they launched a new innovation-strategy service. Rather than help clients design new products within their existing lines—a process IDEO had all but perfected—the service would help them create new lines that would take them in novel strategic directions. Knowing that it hadn't yet figured out how to deliver the service effectively, the company started a small project with a mattress company and didn't publicly announce the launch of a new business.

Although the project failed—the client did not change its product strategy—IDEO learned from it and figured out what had to be done differently. For instance, it hired team members with MBAs who could better help clients create new businesses and made some of the clients' managers part of the team. Today strategic innovation services account for more than a third of IDEO's revenues.

Tolerating unavoidable process failures in complex systems and intelligent failures at the frontiers of knowledge won't promote mediocrity. Indeed, tolerance is essential for any organization that wishes to extract the knowledge such failures provide. But failure is still inherently emotionally charged; getting an organization to accept it takes leadership.

Building a Learning Culture

Only leaders can create and reinforce a culture that counteracts the blame game and makes people feel both comfortable with and responsible for surfacing and learning from failures. (See the sidebar "How Leaders Can Build a Psychologically Safe Environment.") They should insist that their organizations develop a clear understanding of what happened—not of "who did it"—when things go wrong. This requires consistently reporting failures, small and large; systematically analyzing them; and proactively searching for opportunities to experiment.

How Leaders Can Build a Psychologically Safe Environment

IF AN ORGANIZATION'S EMPLOYEES ARE to help spot existing and pending failures and to learn from them, their leaders must make it safe to speak up. Julie Morath, the chief operating officer of Children's Hospital and Clinics of Minnesota from 1999 to 2009, did just that when she led a highly successful effort to reduce medical errors. Here are five practices I've identified in my research, with examples of how Morath employed them to build a psychologically safe environment.

Frame the Work Accurately

People need a shared understanding of the kinds of failures that can be expected to occur in a given work context (routine production, complex operations, or innovation) and why openness and collaboration are important for surfacing and learning from them. Accurate framing detoxifies failure.

In a complex operation like a hospital, many consequential failures are the result of a series of small events. To heighten awareness of this system complexity, Morath presented data on U.S. medical error rates, organized discussion groups, and built a team of key influencers from throughout the organization to help spread knowledge and understanding of the challenge.

Embrace Messengers

Those who come forward with bad news, questions, concerns, or mistakes should be rewarded rather than shot. Celebrate the value of the news first and then figure out how to fix the failure and learn from it.

Morath implemented "Blameless Reporting"—an approach that encouraged employees to reveal medical errors and near misses anonymously. Her team created a new patient safety report, which expanded on the previous version by asking employees to describe

incidents in their own words and to comment on the possible causes. Soon after the new system was implemented, the rate of reported failures shot up. Morath encouraged her people to view the data as good news, because the hospital could learn from failures—and made sure that teams were assigned to analyze every incident.

Acknowledge Limits

Being open about what you don't know, mistakes you've made, and what you can't get done alone will encourage others to do the same.

As soon as she joined the hospital, Morath explained her passion for patient safety and acknowledged that as a newcomer, she had only limited knowledge of how things worked at Children's. In group presentations and one-on-one discussions, she made clear that she would need everyone's help to reduce errors.

Invite Participation

Ask for observations and ideas and create opportunities for people to detect and analyze failures and promote intelligent experiments. Inviting participation helps defuse resistance and defensiveness.

Morath set up cross-disciplinary teams to analyze failures and personally asked thoughtful questions of employees at all levels. Early on, she invited people to reflect on their recent experiences in caring for patients: Was everything as safe as they would have wanted it to be? This helped them recognize that the hospital had room for improvement. Suddenly, people were lining up to help.

Set Boundaries and Hold People Accountable

Paradoxically, people feel psychologically safer when leaders are clear about what acts are blameworthy. And there must be consequences. But if someone is punished or fired, tell those directly and indirectly affected what happened and why it warranted blame.

When she instituted blameless reporting, Morath explained to employees that although reporting would not be punished, specific behaviors (such as reckless conduct, conscious violation of standards,

failing to ask for help when over one's head) would. If someone makes the same mistake three times and is then laid off, coworkers usually express relief, along with sadness and concern—they understand that patients were at risk and that extra vigilance was required from others to counterbalance the person's shortcomings.

Leaders should also send the right message about the nature of the work, such as reminding people in R&D, "We're in the discovery business, and the faster we fail, the faster we'll succeed." I have found that managers often don't understand or appreciate this subtle but crucial point. They also may approach failure in a way that is inappropriate for the context. For example, statistical process control, which uses data analysis to assess unwarranted variances, is not good for catching and correcting random invisible glitches such as software bugs. Nor does it help in the development of creative new products. Conversely, though great scientists intuitively adhere to IDEO's slogan, "Fail often in order to succeed sooner," it would hardly promote success in a manufacturing plant.

Often one context or one kind of work dominates the culture of an enterprise and shapes how it treats failure. For instance, automotive companies, with their predictable, high-volume operations, understandably tend to view failure as something that can and should be prevented. But most organizations engage in all three kinds of work discussed above—routine, complex, and frontier. Leaders must ensure that the right

approach to learning from failure is applied in each. All organizations learn from failure through three essential activities: detection, analysis, and experimentation.

Detecting Failure

Spotting big, painful, expensive failures is easy. But in many organizations any failure that can be hidden *is* hidden as long as it's unlikely to cause immediate or obvious harm. The goal should be to surface it early, before it has mushroomed into disaster.

Shortly after arriving from Boeing to take the reins at Ford, in September 2006, Alan Mulally instituted a new system for detecting failures. He asked managers to color code their reports green for good, yellow for caution, or red for problems—a common management technique. According to a 2009 story in *Fortune*, at his first few meetings all the managers coded their operations green, to Mulally's frustration. Reminding them that the company had lost several billion dollars the previous year, he asked straight out, "Isn't anything *not* going well?" After one tentative yellow report was made about a serious product defect that would probably delay a launch, Mulally responded to the deathly silence that ensued with applause. After that, the weekly staff meetings were full of color.

That story illustrates a pervasive and fundamental problem: Although many methods of surfacing current and pending failures exist, they are grossly underutilized. Total Quality Management and soliciting feedback from customers are well-known techniques for bringing to light failures in routine operations. High-reliability-organization (HRO) practices help prevent catastrophic failures in complex systems like nuclear power plants through early detection. Électricité de France, which operates 58 nuclear power plants, has been an exemplar in this area: It goes beyond regulatory requirements and religiously tracks each plant for anything even slightly out of the ordinary, immediately investigates whatever turns up, and informs all its other plants of any anomalies.

Such methods are not more widely employed because all too many messengers—even the most senior executives—remain reluctant to convey bad news to bosses and colleagues. One senior executive I know in a large consumer products company had grave reservations about a takeover that was already in the works when he joined the management team. But, overly conscious of his newcomer status, he was silent during discussions in which all the other executives seemed enthusiastic about the plan. Many months later, when the takeover had clearly failed, the team gathered to review what had happened. Aided by a consultant, each executive considered what he or she might have done to contribute to the failure. The newcomer, openly apologetic about his past

silence, explained that others' enthusiasm had made him unwilling to be "the skunk at the picnic."

In researching errors and other failures in hospitals, I discovered substantial differences across patient-care units in nurses' willingness to speak up about them. It turned out that the behavior of midlevel managers—how they responded to failures and whether they encouraged open discussion of them, welcomed questions, and displayed humility and curiosity—was the cause. I have seen the same pattern in a wide range of organizations.

A horrific case in point, which I studied for more than two years, is the 2003 explosion of the *Columbia* space shuttle, which killed seven astronauts (see "Facing Ambiguous Threats," by Michael A. Roberto, Richard M.J. Bohmer, and Amy C. Edmondson, HBR, November 2006). NASA managers spent some two weeks downplaying the seriousness of a piece of foam's having broken off the left side of the shuttle at launch. They rejected engineers' requests to resolve the ambiguity (which could have been done by having a satellite photograph the shuttle or asking the astronauts to conduct a space walk to inspect the area in question), and the major failure went largely undetected until its fatal consequences 16 days later. Ironically, a shared but unsubstantiated belief among program managers that there was little they could do contributed to their inability to detect the failure. Postevent analyses suggested that they might indeed have taken fruitful

action. But clearly leaders hadn't established the necessary culture, systems, and procedures.

One challenge is teaching people in an organization when to declare defeat in an experimental course of action. The human tendency to hope for the best and try to avoid failure at all costs gets in the way, and organizational hierarchies exacerbate it. As a result, failing R&D projects are often kept going much longer than is scientifically rational or economically prudent. We throw good money after bad, praying that we'll pull a rabbit out of a hat. Intuition may tell engineers or scientists that a project has fatal flaws, but the formal decision to call it a failure may be delayed for months.

Again, the remedy—which does not necessarily involve much time and expense—is to reduce the stigma of failure. Eli Lilly has done this since the early 1990s by holding "failure parties" to honor intelligent, high-quality scientific experiments that fail to achieve the desired results. The parties don't cost much, and redeploying valuable resources—particularly scientists—to new projects earlier rather than later can save hundreds of thousands of dollars, not to mention kickstart potential new discoveries.

Analyzing Failure

Once a failure has been detected, it's essential to go beyond the obvious and superficial reasons for it to understand the root

causes. This requires the discipline—better yet, the enthusiasm—to use sophisticated analysis to ensure that the right lessons are learned and the right remedies are employed. The job of leaders is to see that their organizations don't just move on after a failure but stop to dig in and discover the wisdom contained in it.

Why is failure analysis often shortchanged? Because examining our failures in depth is emotionally unpleasant and can chip away at our self-esteem. Left to our own devices, most of us will speed through or avoid failure analysis altogether. Another reason is that analyzing organizational failures requires inquiry and openness, patience, and a tolerance for causal ambiguity. Yet managers typically admire and are rewarded for decisiveness, efficiency, and action—not thoughtful reflection. That is why the right culture is so important.

The challenge is more than emotional; it's cognitive, too. Even without meaning to, we all favor evidence that supports our existing beliefs rather than alternative explanations. We also tend to downplay our responsibility and place undue blame on external or situational factors when we fail, only to do the reverse when assessing the failures of others—a psychological trap known as *fundamental attribution error*.

My research has shown that failure analysis is often limited and ineffective—even in complex organizations like hospitals, where human lives are at stake. Few hospitals systematically

analyze medical errors or process flaws in order to capture failure's lessons. Recent research in North Carolina hospitals, published in November 2010 in the *New England Journal of Medicine*, found that despite a dozen years of heightened awareness that medical errors result in thousands of deaths each year, hospitals have not become safer.

Fortunately, there are shining exceptions to this pattern, which continue to provide hope that organizational learning is possible. At Intermountain Healthcare, a system of 23 hospitals that serves Utah and southeastern Idaho, physicians' deviations from medical protocols are routinely analyzed for opportunities to improve the protocols. Allowing deviations and sharing the data on whether they actually produce a better outcome encourages physicians to buy into this program. (See "Fixing Health Care on the Front Lines," by Richard M.J. Bohmer, HBR, April 2010.)

Motivating people to go beyond first-order reasons (procedures weren't followed) to understanding the second- and third-order reasons can be a major challenge. One way to do this is to use interdisciplinary teams with diverse skills and perspectives. Complex failures in particular are the result of multiple events that occurred in different departments or disciplines or at different levels of the organization. Understanding what happened and how to prevent it from happening again requires detailed, team-based discussion and analysis.

A team of leading physicists, engineers, aviation experts, naval leaders, and even astronauts devoted months to an analysis of the *Columbia* disaster. They conclusively established not only the first-order cause—a piece of foam had hit the shuttle's leading edge during launch—but also second-order causes: A rigid hierarchy and schedule-obsessed culture at NASA made it especially difficult for engineers to speak up about anything but the most rock-solid concerns.

Promoting Experimentation

The third critical activity for effective learning is strategically producing failures—in the right places, at the right times—through systematic experimentation. Researchers in basic science know that although the experiments they conduct will occasionally result in a spectacular success, a large percentage of them (70% or higher in some fields) will fail. How do these people get out of bed in the morning? First, they know that failure is not optional in their work; it's part of being at the leading edge of scientific discovery. Second, far more than most of us, they understand that every failure conveys valuable information, and they're eager to get it before the competition does.

In contrast, managers in charge of piloting a new product or service—a classic example of experimentation in business—typically do whatever they can to make sure that the pilot is

perfect right out of the starting gate. Ironically, this hunger to succeed can later inhibit the success of the official launch. Too often, managers in charge of pilots design optimal conditions rather than representative ones. Thus the pilot doesn't produce knowledge about what *won't* work.

In the very early days of DSL, a major telecommunications company I'll call Telco did a full-scale launch of that high-speed technology to consumer households in a major urban market. It was an unmitigated customer-service disaster. The company missed 75% of its commitments and found itself confronted with a staggering 12,000 late orders. Customers were frustrated and upset, and service reps couldn't even begin to answer all their calls. Employee morale suffered. How could this happen to a leading company with high satisfaction ratings and a brand that had long stood for excellence?

A small and extremely successful suburban pilot had lulled Telco executives into a misguided confidence. The problem was that the pilot did not resemble real service conditions: It was staffed with unusually personable, expert service reps and took place in a community of educated, tech-savvy customers. But DSL was a brand-new technology and, unlike traditional telephony, had to interface with customers' highly variable home computers and technical skills. This added complexity and unpredictability to the service-delivery challenge in ways that Telco had not fully appreciated before the launch.

A more useful pilot at Telco would have tested the technology with limited support, unsophisticated customers, and old computers. It would have been designed to discover everything that could go wrong—instead of proving that under the best of conditions everything would go right. (See the sidebar "Designing Successful Failures.") Of course, the managers in charge would have to have understood that they were going to be rewarded not for success but, rather, for producing intelligent failures as quickly as possible.

Designing Successful Failures

PERHAPS UNSURPRISINGLY, PILOT PROJECTS are usually designed to succeed rather than to produce intelligent failures—those that generate valuable information. To know if you've designed a genuinely useful pilot, consider whether your managers can answer yes to the following questions:

- Is the pilot being tested under typical circumstances (rather than optimal conditions)?
- Do the employees, customers, and resources represent the firm's real operating environment?
- Is the goal of the pilot to learn as much as possible (rather than to demonstrate the value of the proposed offering)?
- Is the goal of learning well understood by all employees and managers?

- Is it clear that compensation and performance reviews are not based on a successful outcome for the pilot?
- Were explicit changes made as a result of the pilot test?

In short, exceptional organizations are those that go beyond detecting and analyzing failures and try to generate intelligent ones for the express purpose of learning and innovating. It's not that managers in these organizations enjoy failure. But they recognize it as a necessary by-product of experimentation. They also realize that they don't have to do dramatic experiments with large budgets. Often a small pilot, a dry run of a new technique, or a simulation will suffice.

The courage to confront our own and others' imperfections is crucial to solving the apparent contradiction of wanting neither to discourage the reporting of problems nor to create an environment in which anything goes. This means that managers must ask employees to be brave and speak up—and must not respond by expressing anger or strong disapproval of what may at first appear to be incompetence. More often than we realize, complex systems are at work behind organizational failures, and their lessons and improvement opportunities are lost when conversation is stifled.

Savvy managers understand the risks of unbridled toughness. They know that their ability to find out about and help resolve problems depends on their ability to learn about them. But most managers I've encountered in my research, teaching, and consulting work are far more sensitive to a different risk—that an understanding response to failures will simply create a lax work environment in which mistakes multiply.

This common worry should be replaced by a new paradigm—one that recognizes the inevitability of failure in today's complex work organizations. Those that catch, correct, and learn from failure before others do will succeed. Those that wallow in the blame game will not.

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Learning in the Thick of It

by Marilyn Darling, Charles Parry, and Joseph Moore

IMAGINE AN ORGANIZATION that confronts constantly changing competitors. That is always smaller and less well-equipped than its opponents. That routinely cuts its manpower and resources. That turns over a third of its leaders every year. And that still manages to win competition after competition after competition.

The U.S. Army's Opposing Force (commonly known as OPFOR), a 2,500-member brigade whose job is to help prepare soldiers for combat, is just such an organization. Created to be the meanest, toughest foe troops will ever face, OPFOR engages units-in-training in a variety of mock campaigns under a wide range of conditions. Every month, a fresh brigade of more than 4,000 soldiers takes on this standing enemy, which, depending on the scenario, may play the role of a hostile army or insurgents, paramilitary units, or terrorists. The two sides battle on foot, in tanks, and in helicopters dodging artillery, land mines, and chemical weapons.

Stationed on a vast, isolated stretch of California desert, OPFOR has the home-court advantage. But the force that's being trained— called Blue Force, or BLUFOR, for the duration of the exercise—is numerically and technologically superior. It possesses more dedicated resources and better, more rapidly available data. It is made up of experienced soldiers. And it knows just what to expect, because OPFOR shares its methods from previous campaigns with BLUFOR's commanders. In short, each of these very capable BLUFOR brigades is given practically every edge. Yet OPFOR almost always wins.

Underlying OPFOR's consistent success is the way it uses the *after-action review* (AAR), a method for extracting lessons from one event or project and applying them to others. The AAR, which has evolved over the past two decades, originated at OPFOR's parent organization, the National Training Center (NTC). AAR meetings became a popular business tool after Shell Oil began experimenting with them in 1998 at the suggestion of board member Gordon Sullivan, a retired general. Teams at such companies as Colgate-Palmolive, DTE Energy, Harley-Davidson, and J.M. Huber use these reviews to identify both best practices (which they want to spread) and mistakes (which they don't want to repeat).

Most corporate AARs, however, are faint echoes of the rigorous reviews OPFOR performs. It is simply too easy for companies to turn the process into a pro forma wrap-up. All too often, scrapped projects, poor investments, and failed safety

measures end up repeating themselves. Efficient shortcuts, smart solutions, and sound strategies don't.

For companies that want to transform their AARs from postmortems of past failure into aids for future success, there is no better teacher than the technique's master practitioner. OPFOR treats every action as an opportunity for learning—about what to do but also, more important, about how to think. Instead of producing static "knowledge assets" to file away in a management report or repository, OPFOR's AARs generate raw material that the brigade feeds back into the execution cycle. And while OPFOR's reviews extract numerous lessons, the group does not consider a lesson to be truly learned until it is successfully applied and validated.

The battlefield of troops, tanks, and tear gas is very different from the battlefield of products, prices, and profits. But companies that adapt OPFOR's principles to their own practices will be able to integrate leadership, learning, and execution to gain rapid and sustained competitive advantage.

Why Companies Don't Learn

An appreciation of what OPFOR does right begins with an understanding of what businesses do wrong. To see why even organizations that focus on learning often repeat mistakes, we analyzed the AAR and similar "lessons learned" processes at more than a dozen corporations, nonprofits, and government

agencies. The fundamentals are essentially the same at each: Following a project or event, team members gather to share insights and identify mistakes and successes. Their conclusions are expected to flow—by formal or informal channels—to other teams and eventually coalesce into best practices and global standards.

Idea in Brief

Like many managers, you probably conduct after-action reviews (AARs) to extract lessons from key projects and apply them to others. But in most companies, AARs don't fulfill their promise: Scrapped projects, poor investments, and failed safety measures repeat themselves—while hoped-for gains rarely materialize. One manufacturing executive, reading an AAR report for a failed project that had stumbled twice before, realized with horror that the team was "discovering" the same mistakes all over again.

How to transform your AARs from diagnoses of past failure into aids for future success? Realize that looking for lessons isn't the same as learning them. View the AAR as an ongoing learning process—rather than a one-time meeting, report, or postmortem. Set the stage for AARs with rigorous before-action planning—articulating your intended results, anticipated challenges, and lessons from previous similar situations. Conduct mini-AARs after each project milestone—holding everyone accountable for applying key lessons quickly in the next project phase.

Companies that master this process gain—and sustain—competitive advantage. They avoid repeating the kinds of errors that gnaw away at stakeholder value. And instead of merely fixing problems, they adapt more rapidly and effectively than rivals to challenges no one even imagined.

Mostly though, that doesn't happen. Although the companies we studied actively look for lessons, few learn them in a meaningful way. One leader at a large manufacturing company told us about an after-action review for a failed project that had already broken down twice before. Having read reports from the earlier attempts' AARs—which consisted primarily of one-on-one interviews—she realized with horror after several grueling hours that the team was "discovering" the same mistakes all over again.

Idea in Practice

To improve your AAR process:

Build Your AAR Regimen Slowly

Rather than applying the AAR process across the board, begin using it selectively—on projects where the payoff is greatest and leaders have committed to working through several AAR cycles.

Focus on efforts critical to your team's mission, so people will be motivated to participate.

Conduct a Before-Action Review (BAR)

Before embarking on an important project, answer these questions:

- **"What are our intended results and metrics?"** Does your team want to improve product quality? Accelerate its response to emergencies? Improve sales win/loss ratio?
- **"What challenges do we anticipate?"** Do you expect shortages of certain resources? A turn in customers' preferences?

- **“What have we or others learned from similar projects?”** Be candid about past failures—focusing on improving performance, not placing blame.
- **“What will enable us to succeed this time?”** What practices helped you succeed in earlier efforts? What worked before that should be tested under different circumstances?

Responses to these questions align team members’ objectives and set the stage for effective AARs as your project unfolds.

Conduct Mini-BARs and AARs

Break big projects into smaller chunks, book-ended by short BAR and AAR meetings conducted in task-focused groups. You’ll establish feedback loops that maximize project performance and foster an ongoing learning culture.

But tailor your process to fit each project and project phase. For example, during periods of intense activity, use brief daily AAR meetings to help teams coordinate and improve the next day’s work. At other times, less frequent meetings—monthly or quarterly—may be sufficient to identify and correct emerging problems.

Focus on Your Own Team’s Learning

Lessons must first and foremost benefit your team, so resist any urge to create an AAR document specifically for some other corporate use. Focus team members on improving their own learning and, as a result, their own performance.

Your people may generate a lesson during the AAR process, but they won’t have *learned* the lesson until they’ve changed their behavior. It takes multiple iterations to produce solutions that stand up under any conditions.

A somewhat different problem cropped up at a telecom company we visited. A team of project managers there conducted rigorous milestone reviews and wrap-up AAR meetings on each of its projects, identifying problems and creating technical fixes to avoid them in future initiatives. But it made no effort to apply what it was learning to actions and decisions taken on its current projects. After several months, the team had so overwhelmed the system with new steps and checks that the process itself began causing delays. Rather than improving learning and performance, the AARs were reducing the team's ability to solve its problems.

We also studied a public agency that was running dozens of similar projects simultaneously. At the end of each project, team leaders were asked to complete a lessons-learned questionnaire about the methods they would or would not use again; what training the team had needed; how well members communicated; and whether the planning had been effective. But the projects ran for years, and memory is less reliable than observation. Consequently, the responses of the few leaders who bothered to fill out the forms were often sweepingly positive—and utterly useless.

Those failures and many more like them stem from three common misconceptions about the nature of an AAR: that it is a meeting, that it is a report, or that it is a postmortem. In fact, an AAR should be more verb than noun—a living, pervasive process that explicitly connects past experience with future

action. That is the AAR as it was conceived back in 1981 to help Army leaders adapt quickly in the dynamic, unpredictable situations they were sure to face. And that is the AAR as OPFOR practices it every day.

More Than a Meeting

Much of the civilian world's confusion over AARs began because management writers focused only on the AAR meeting itself. OPFOR's AARs, by contrast, are part of a cycle that starts before and continues throughout each campaign against BLUFOR. (BLUFOR units conduct AARs as well, but OPFOR has made a fine art of them.) OPFOR's AAR regimen includes brief huddles, extended planning and review sessions, copious note taking by everyone, and the explicit linking of lessons to future actions.

The AAR cycle for each phase of the campaign begins when the senior commander drafts "operational orders." This document consists of four parts: the task (what actions subordinate units must take); the purpose (why the task is important); the commander's intent (what the senior leader is thinking, explained so that subordinates can pursue his goals even if events don't unfold as expected); and the end state (what the desired result is). It might look like this:

Task: "Seize key terrain in the vicinity of Tiefort City…"

Purpose: "… so that the main effort can safely pass to the north."

Commander's Intent: "I want to find the enemy's strength and place fixing forces there while our assault force maneuvers to his flank to complete the enemy's defeat. The plan calls for that to happen here, but if it doesn't, you leaders have to tell me where the enemy is and which flank is vulnerable."

End State: "In the end, I want our forces in control of the key terrain, with all enemy units defeated or cut off from their supplies."

The commander shares these orders with his subordinate commanders—the leaders in charge of infantry, munitions, intelligence, logistics, artillery, air, engineers, and communications. He then asks each for a "brief back"—a verbal description of the unit's understanding of its mission (to ensure everyone is on the same page) and its role. This step builds accountability: "You said it. I heard it." The brief back subsequently guides these leaders as they work out execution plans with their subordinates.

Later that day, or the next morning, the commander's executive officer (his second in command) plans and conducts a rehearsal, which includes every key participant. Most rehearsals take place on a scale model of the battlefield,

complete with hills sculpted from sand, spray-painted roads, and placards denoting major landmarks. The rehearsal starts with a restatement of the mission and the senior commander's intent, an intelligence update on enemy positions and strength, and a breakdown of the battle's projected critical phases. Each time the executive officer calls out a phase, the unit leaders step out onto the terrain model to the position they expect to occupy during that part of the action. They state their groups' tasks and purposes within the larger mission, the techniques they will apply in that phase, and the resources they expect to have available. After some discussion about what tactics the enemy might use and how units will communicate and coordinate in the thick of battle, the executive officer calls out the next phase and the process is repeated.

As a result of this disciplined preparation, the action that follows becomes a learning experiment. Each unit within OPFOR has established a clear understanding of what it intends to do and how it plans to do it and has shared that understanding with all other units. The units have individually and collectively made predictions about what will occur, identified challenges that may arise, and built into their plans ways to address those challenges. So when OPFOR acts, it will be executing a plan but also observing and testing that plan. The early meetings and rehearsals produce a testable hypothesis: "In *this* situation, given *this* mission, if we take *this*

action, we will accomplish *that* outcome." OPFOR is thus able to select the crucial lessons it wants to learn from each action and focus soldiers' attention on them in advance.

Such before-action planning helps establish the agenda for after-action meetings. Conversely, the rigor of the AAR meetings improves the care and precision that go into the before-action planning. As one OPFOR leader explained to us: "We live in an environment where we know we will have an AAR, and we will have to say out loud what worked and what didn't. That leads to asking tough questions during the planning phase or rehearsals so that you know you have it as right as you can get it. No subordinate will let the boss waffle on something for long before challenging him to say it clearly because it will only come out later in the AAR. As a consequence, AAR meetings create a very honest and critical environment well before they begin."

Learning to Be OPFOR

THE 11TH ARMORED CAVALRY REGIMENT (ACR), which has played the Opposing Force (OPFOR) for more than a decade, is a brigade of regular U.S. Army soldiers. In the current environment, every Army unit that is deployable has been activated—including the 11th ACR, which is now overseas.

It will return. In the meantime, a National Guard unit that fought side by side with the 11th ACR for ten years has assumed the OPFOR mantle. This new OPFOR faces even greater challenges than the

> regular brigade did. It is smaller. It comprises not professional soldiers but weekend warriors from such companies as UPS and Nextel. And it recently gave up its home-court advantage and traveled to BLUFOR's home base when that unit-in-training's deployment date was moved up.
>
> Nonetheless, the Army is satisfied that this new OPFOR—now one year into its role—is successfully preparing combat units for deployment to the Middle East. It has managed that, in large part, by leveraging the after-action review (AAR) regimen it learned from the 11th ACR. It is difficult to imagine a more dramatic change than the wholesale replacement of one team by another. That the new OPFOR has met this challenge is powerful evidence of the AAR's efficacy to help an organization learn and adapt quickly.

The reference to AAR *meetings*—plural—is important. While a corporate team might conduct one AAR meeting at the end of a six-month project, OPFOR holds dozens of AARs at different levels in a single week. Each unit holds an AAR meeting immediately after each significant phase of an action. If time is short, such meetings may be no more than ten-minute huddles around the hood of a Humvee.

It is common for OPFOR's AARs to be facilitated by the unit leader's executive officer. Virtually all formal AAR meetings begin with a reiteration of the house rules, even if everyone present has already heard them a hundred times: Participate. No thin skins. Leave your stripes at the door. Take notes. Focus on our issues, not the issues of those above us. (The participants' commanders hold their own AARs to address issues at their level.) Absolute candor is critical. To promote a

sense of safety, senior leaders stay focused on improving performance, not on placing blame, and are the first to acknowledge their own mistakes.

The AAR leader next launches into a comparison of intended and actual results. She repeats the mission, intent, and expected end state; she then describes the actual end state, along with a brief review of events and any metrics relevant to the objective. For example, if the unit had anticipated that equipment maintenance or logistics would be a challenge, what resources (mines, wire, ammo, vehicles) were functioning and available?

The AAR meeting addresses four questions: What were our intended results? What were our actual results? What caused our results? And what will we sustain or improve? For example:

> *Sustain:* "Continual radio commo checks ensured we could talk with everyone. That became important when BLUFOR took a different route and we needed to reposition many of our forces."
>
> *Sustain:* "We chose good battle positions. That made it easier to identify friends and foes in infantry."
>
> *Improve:* "When fighting infantry units, we need to keep better track of the situation so we can attack the infantry before they dismount."

> *Improve:* "How we track infantry. We look for trucks, but we need to look for dismounted soldiers and understand how they'll try to deceive us."

One objective of the AAR, of course, is to determine what worked and what didn't, to help OPFOR refine its ability to predict what will work and what won't in the future. How well did the unit assess its challenges? Were there difficulties it hadn't foreseen? Problems that never materialized? Yes, it is important to correct *things*; but it is more important to correct *thinking*. (OPFOR has determined that flawed assumptions are the most common cause of flawed execution.) Technical corrections affect only the problem that is fixed. A thought-process correction—that is to say, learning—affects the unit's ability to plan, adapt, and succeed in future battles.

More Than a Report

At most civilian organizations we studied, teams view the AAR chiefly as a tool for capturing lessons and disseminating them to other teams. Companies that treat AARs this way sometimes even translate the acronym as after-action report instead of after-action review, suggesting that the objective is to create a document intended for other audiences. Lacking a personal stake, team members may participate only because they've been told to or out of loyalty to the company. Members don't

expect to learn something useful themselves, so usually they don't.

OPFOR's AARs, by contrast, focus on improving a unit's own learning and, as a result, its own performance. A unit may generate a lesson during the AAR process, but by OPFOR's definition, it won't have learned that lesson until its members have changed their behavior in response. Furthermore, soldiers need to see that it actually works. OPFOR's leaders know most lessons that surface during the first go-round are incomplete or plain wrong, representing what the unit thinks should work and not what really does work. They understand that it takes multiple iterations to produce dynamic solutions that will stand up under any conditions.

For example, in one fight against a small, agile infantry unit, OPFOR had to protect a cave complex containing a large store of munitions. BLUFOR's infantry chose the attack route least anticipated by OPFOR's commanders. Because scouts were slow to observe and communicate the change in BLUFOR's movements, OPFOR was unable to prevent an attack that broke through its defense perimeter. OPFOR was forced to hastily reposition its reserve and forward units. Much of its firepower didn't reach the crucial battle or arrived too late to affect the outcome.

OPFOR's unit leaders knew they could extract many different lessons from this situation. "To fight an agile infantry unit, we must locate and attack infantry before soldiers can leave their

trucks" was the first and most basic. But they also knew that that insight was not enough to ensure future success. For example, scouts would have to figure out how to choose patrol routes and observation positions so as to quickly and accurately locate BLUFOR's infantry before it breached the defense. Then staffers would need to determine how to use information from observation points to plan effective artillery missions—in the dark, against a moving target. The next challenge would be to test their assumptions to see first, if they could locate and target infantry sooner; and second, what difference that ability would make to them achieving their mission.

OPFOR's need to test theories is another reason the brigade conducts frequent brief AARs instead of one large wrap-up. The sooner a unit identifies targeting infantry as a skill it must develop, the more opportunities it has to try out different assumptions and strategies during a rotation and the less likely those lessons are to grow stale. So units design numerous small experiments—short cycles of "plan, prepare, execute, AAR"—within longer campaigns. That allows them to validate lessons for their own use and to ensure that the lessons they share with other teams are "complete"—meaning they can be applied in a variety of future situations. More important, soldiers see their performance improve as they apply those lessons, which sustains the learning culture.

Not all OPFOR experiments involve correcting what went wrong. Many involve seeing if what went right will continue to go right under different circumstances. So, for example, if OPFOR has validated the techniques it used to complete a mission, it might try the same mission at night or against an enemy armed with cutting-edge surveillance technology. A consulting-firm ad displays Tiger Woods squinting through the rain to complete a shot and the headline: "Conditions change. Results shouldn't." That could be OPFOR's motto.

In fact, rather than writing off extreme situations as onetime exceptions, OPFOR embraces them as learning opportunities. OPFOR's leaders relish facing an unusual enemy or situation because it allows them to build their repertoire. "It's a chance to measure just how good we are, as opposed to how good we think we are," explained one OPFOR commander. Such an attitude might seem antithetical to companies that can't imagine purposely handicapping themselves in any endeavor. But OPFOR knows that the more challenging the game, the stronger and more agile a competitor it will become.

Five Ways to Put AARs to Work at Work

THE U.S. ARMY'S STANDING ENEMY BRIGADE (referred to as OPFOR) applies the after-action review (AAR) process to everything it does, but that's not realistic for most companies. Business leaders must act

selectively, with an eye toward resources and potential payoffs. Don't even think about creating an AAR regimen without determining who is likely to learn from it and how they will benefit. Build slowly, beginning with activities where the payoff is greatest and where leaders have committed to working through several AAR cycles. Focus on areas critical to a team's mission so members have good reason to participate. And customize the process to fit each project and project phase. For example, during periods of intense activity, brief daily AAR meetings can help teams coordinate and improve the next day's activities. At other times, meetings might occur monthly or quarterly and be used to identify exceptions in volumes of operational data and to understand the causes. The level of activity should always match the potential value of lessons learned. Here are some ways you can use AARs, based on examples from companies that have used them effectively.

	The AAR in practice	The payoff
1. Emergency response	• Survey past emergencies to identify types of events and learning challenges. • Ask team members to take notes during the response process to facilitate the upcoming AAR. • Conduct AARs during the response process (if possible) or immediately afterward to begin building procedures and long-term solutions. • Periodically review past AARs to identify potential systems improvements.	• Avoid similar emergencies in the future. • Improve the speed and quality of your responses and damage control. • Improve the long-term effectiveness of your solutions.
2. Product development	• Start each phase of product development with a before-action review (BAR). • Conduct AARs to identify insights to feed from one phase of product development into the next—and then into the next project. • Periodically conduct AARs on the product-planning process to identify potential improvements.	• Improve quality, reduce cost, and shorten time to market. • Anticipate customers' changing expectations.
3. Entering a new business or market	• Launch business planning with a BAR to reflect on past lessons. • Conduct AARs throughout the launch process to test lessons and create innovative solutions. • Conduct a wrap-up AAR to improve performance on the next venture.	• Apply lessons from past successes and failures to improve results on new ventures.
4. Sales	• Build AARs into the sales process, focusing as much on learning from wins as from losses.	• Improve the win/loss ratio. • Refine the value proposition for a new product.

	• Conduct AARs on customer defections to competitors' products.	
5. Mergers and acquisitions	• Build AARs into strategy, negotiation, due diligence, and execution phases to continually reveal, test, and modify assumptions about the deal. • Wrap up each M&A activity by comparing it with previous efforts to identify problems and good ideas.	• Ensure that transactions deliver promised value to stakeholders.

More Than a Postmortem

Corporate AARs are often convened around failed projects. The patient is pronounced dead, and everyone weighs in on the mistakes that contributed to his demise. The word "accountability" comes up a lot—generally it means "blame," which participants expend considerable energy trying to avoid. There is a sense of finality to these sessions. The team is putting a bad experience behind it.

"Accountability" comes up a lot during OPFOR's AARs as well, but in that context it is forward-looking rather than backward-looking. Units are accountable for learning their own lessons. And OPFOR's leaders are accountable for taking lessons from one situation and applying them to others—for forging explicit links between past experience and future performance.

At the end of an AAR meeting, the senior commander stands and offers his own assessment of the day's major lessons and

how they relate to what was learned and validated during earlier actions. He also identifies the two or three lessons he expects will prove most relevant to the next battle or rotation. If the units focus on more than a few lessons at a time, they risk becoming overwhelmed. If they focus on lessons unlikely to be applied until far in the future, soldiers might forget.

At the meeting following the infantry battle described earlier, for example, the senior commander summed up this way: "To me, this set of battles was a good rehearsal for something we'll see writ large in a few weeks. We really do need to take lessons from these fights, realizing that we'll have a far more mobile attack unit. Deception will be an issue. Multiple routes will be an issue. Our job is to figure out common targets. We need to rethink how to track movement. How many scouts do we need in close to the objective area to see soldiers? They will be extremely well-equipped. So one thing I'm challenging everyone to do is to be prepared to discard your norms next month. It's time to sit down and talk with your sergeants about how you fight a unit with a well-trained infantry."

Immediately after the AAR meeting breaks up, commanders gather their units to conduct their own AARs. Each group applies lessons from these AAR meetings to plan its future actions—for example, repositioning scouts to better track infantry movements in the next battle.

OPFOR also makes its lessons available to BLUFOR: The groups' commanders meet before rotations, and OPFOR's

commander allows himself to be “captured” by BLUFOR at the conclusion of battles in order to attend its AARs. At those meetings, the OPFOR commander explains his brigade’s planning assumptions and tactics and answers his opponents’ questions.

Beyond those conferences with BLUFOR, formally spreading lessons to other units for later application—the chief focus of many corporate AARs—is not in OPFOR’s job description. The U.S. Army uses formal knowledge systems to capture and disseminate important lessons to large, dispersed audiences, and the National Training Center contributes indirectly to those. (See the sidebar “Doctrine and Tactics.”) Informal knowledge sharing among peers, however, is very common. OPFOR’s leaders, for example, use e-mail and the Internet to stay in touch with leaders on combat duty. The OPFOR team shares freshly hatched insights and tactics with officers in Afghanistan and Iraq; those officers, in turn, describe new and unexpected situations cropping up in real battles. And, of course, OPFOR’s leaders don’t stay out in the Mojave Desert forever. Every year as part of the Army’s regular rotation, one-third move to other units, which they seed with OPFOR-spawned thinking. Departing leaders leave behind “continuity folders” full of lessons and AAR notes for their successors.

Doctrine and Tactics

THE LESSONS PRODUCED AND VALIDATED by the U.S. Army's Opposing Force (OPFOR) and the units it trains at the National Training Center (NTC) in Fort Irwin, California, contribute to the Army's two classes of organizational knowledge. One class, known as Tactics, Techniques, and Procedures (TTP), focuses on how to perform specific tasks under specific conditions. It is the responsibility of each unit leader to build her own library of TTP by learning from other leaders as well as by capturing good ideas from her subordinates. Two unit leaders in the same brigade may need to employ different TTP to address different conditions.

Sufficiently weighty, widely applicable, and rigorously tested TTP may ultimately inform the Army's other class of organizational knowledge: doctrine. Doctrine—which rarely changes and is shared by the entire Army—establishes performance standards for the kinds of actions and conditions military units commonly face. For example, many of the steps in the doctrine for a brigade-level attack (such as planning for mobility, survivability, and air defense) began life as lessons from the NTC and other Army training centers.

The difference between doctrine and TTP is a useful one for businesses, some of which draw few distinctions among the types of knowledge employees generate and about how widely diverse lessons should be applied and disseminated.

In an environment where conditions change constantly, knowledge is always a work in progress. So creating, collecting, and sharing knowledge are the responsibility of the people who can apply it. Knowledge is not a staff function.

The Corporate Version

It would be impractical for companies to adopt OPFOR's processes in their entirety. Still, many would benefit from

making their own after-action reviews more like OPFOR's. The business landscape, after all, is competitive, protean, and often dangerous. An organization that doesn't merely extract lessons from experience but actually learns them can adapt more quickly and effectively than its rivals. And it is less likely to repeat the kinds of errors that gnaw away at stakeholder value.

Most of the practices we've described can be customized for corporate environments. Simpler forms of operational orders and brief backs, for example, can ensure that a project is seen the same way by everyone on the team and that each member understands his or her role in it. A corporate version, called a before-action review (BAR), requires teams to answer four questions before embarking on an important action: What are our intended results and measures? What challenges can we anticipate? What have we or others learned from similar situations? What will make us successful this time? The responses to those questions align the team's objectives and set the stage for an effective AAR meeting following the action. In addition, breaking projects into smaller chunks, bookended by short BAR and AAR meetings conducted in task-focused groups, establishes feedback loops that can help a project team maximize performance and develop a learning culture over time.

Every organization, every team, and every project will likely require different levels of preparation, execution, and review. However, we have distilled some best practices from the few

companies we studied that use AARs well. For example, leaders should phase in an AAR regimen, beginning with the most important and complex work their business units perform. Teams should commit to holding short BAR and AAR meetings as they go, keeping things simple at first and developing the process slowly—adding rehearsals, knowledge-sharing activities and systems, richer metrics, and other features dictated by the particular practice.

While companies will differ on the specifics they adopt, four fundamentals of the OPFOR process are mandatory. Lessons must first and foremost benefit the team that extracts them. The AAR process must start at the beginning of the activity. Lessons must link explicitly to future actions. And leaders must hold everyone, especially themselves, accountable for learning.

By creating tight feedback cycles between thinking and action, AARs build an organization's ability to succeed in a variety of conditions. Former BLUFOR brigades that are now deploying to the Middle East take with them not just a set of lessons but also a refresher course on how to draw new lessons from situations for which they did not train—situations they may not even have imagined. In a fast-changing environment, the capacity to learn lessons is more valuable than any individual lesson learned. That capacity is what companies can gain by studying OPFOR.

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Counterpoint

Learning in Action

by Amy C. Edmondson, Richard M.J. Bohmer, and Gary P. Pisano

[In our research,] we were surprised by some of the factors that turned out not to matter in how quickly teams learned [a new, minimally invasive cardiac surgery technology]....

[For instance,] the debriefs, project audits, and after-action reports so often cited as key to learning weren't pivotal to the success or failure of the teams we studied. In fact, few surgical teams had time for regular, formal reviews of their work. At one hospital, such reviews were normally conducted at midnight over take-out Chinese food. Some research-oriented academic medical centers did aggregate performance data and analyze the data retrospectively, but teams at these hospitals didn't necessarily improve at faster rates. Instead, as we will discuss, the successful teams engaged in real-time learning—analyzing and drawing lessons from the process while it was under way.

Creating an Environment of Psychological Safety

Teams, even more than individuals, learn through trial and error. Because of the many interactions among members, it's very difficult for teams to perform tasks smoothly the first time, despite well-designed training programs and extensive individual preparation. The fastest-learning teams in our study tried different approaches in an effort to shave time from the operation without endangering patients. Indeed, team members uniformly emphasized the importance of experimenting with new ways of doing things to improve team performance—even if some of the new ways turned out not to work.

As we have noted, this learning in action proved to be more effective than the after-action analysis so often touted as key to organizational learning. Real-time learning occasionally yielded insights that might have been lost had a team member waited for a formal review session. During a procedure at one hospital, for instance, a nurse spontaneously suggested solving a surgical problem with a long-discarded type of clamp affectionately known as the "iron intern." The use of the nearly forgotten medical device immediately became part of that team's permanent routine.

When individuals learn, the process of trial and error—propose something, try it, then accept or reject it—occurs in private. But on a team, people risk appearing ignorant or incompetent when they suggest or try something new. This is particularly true in the case of technology implementation,

because new technologies often render many of the skills of current “experts” irrelevant. Neutralizing the fear of embarrassment is necessary in order to achieve the robust back-and-forth communication among team members required for real-time learning.

Teams whose members felt comfortable making suggestions, trying things that might not work, pointing out potential problems, and admitting mistakes were more successful in learning the new procedure. By contrast, when people felt uneasy acting this way, the learning process was stifled.

Although the formal training for the new procedure emphasized the need for everyone on the team to speak up with observations, concerns, and questions while using the technology, such feedback often didn’t happen. One team member even reported being upbraided for pointing out what he believed to be a life-threatening situation. More typical was the comment of one nurse: “If you observe something that might be a problem, you are obligated to speak up, but you choose your time. I will work around the surgeon and go through his PA [physician’s assistant] if there is a problem.”

But other teams clearly did foster a sense of psychological safety. How? Through the words and actions of the surgeons who acted as team leaders—not surprising, given the explicit hierarchy of the operating room. At one hospital, the surgeon told team members that they had been selected not only because of their skills but also because of the input they could

provide on the process. Another surgeon, according to one of his team members, repeatedly told the team: “I need to hear from you because I’m likely to miss things.” The repetition itself was important. If they hear it only once, people tend not to hear—or believe—a message that contradicts old norms.

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Is Yours a Learning Organization?

by David A. Garvin, Amy C. Edmondson, and Francesca Gino

LEADERS MAY THINK THAT GETTING their organizations to learn is only a matter of articulating a clear vision, giving employees the right incentives, and providing lots of training. This assumption is not merely flawed—it's risky in the face of intensifying competition, advances in technology, and shifts in customer preferences.

Organizations need to learn more than ever as they confront these mounting forces. Each company must become a *learning organization*. The concept is not a new one. It flourished in the 1990s, stimulated by Peter M. Senge's *The Fifth Discipline* and countless other publications, workshops, and websites. The result was a compelling vision of an organization made up of employees skilled at creating, acquiring, and transferring knowledge. These people could help their firms cultivate tolerance, foster open discussion, and think holistically and systemically. Such learning organizations would be able to

adapt to the unpredictable more quickly than their competitors could.

Unpredictability is very much still with us. However, the ideal of the learning organization has not yet been realized. Three factors have impeded progress. First, many of the early discussions about learning organizations were paeans to a better world rather than concrete prescriptions. They overemphasized the forest and paid little attention to the trees. As a result, the associated recommendations proved difficult to implement—managers could not identify the sequence of steps necessary for moving forward. Second, the concept was aimed at CEOs and senior executives rather than at managers of smaller departments and units where critical organizational work is done. Those managers had no way of assessing how their teams' learning was contributing to the organization as a whole. Third, standards and tools for assessment were lacking. Without these, companies could declare victory prematurely or claim progress without delving into the particulars or comparing themselves accurately with others.

In this article, we address these deficiencies by presenting a comprehensive, concrete survey instrument for assessing learning within an organization. Built from the ground up, our tool measures the learning that occurs in a department, office, project, or division—an organizational unit of any size that has meaningful shared or overlapping work activities. Our instrument enables your company to compare itself against

benchmark scores gathered from other firms; to make assessments across areas within the organization (how, for, example, do different groups learn relative to one another?); and to look deeply within individual units. In each case, the power is in the comparisons, not in the absolute scores. You may find that an area your organization thought was a strength is actually less robust than at other organizations. In effect, the tool gives you a broader, more grounded view of how well your company learns and how adeptly it refines its strategies and processes. Each organization, and each unit within it, needs that breadth of perspective to accurately measure its learning against that of its peers.

Idea in Brief

With tougher competition, technology advances, and shifting customer preferences, it's more crucial than ever that companies become *learning organizations*. In a learning organization, employees continually create, acquire, and transfer knowledge—helping their company adapt to the unpredictable faster than rivals can.

But few companies have achieved this ideal. Why? Managers don't know the precise steps for building a learning organization. And they lack tools for assessing whether their teams are learning or how that learning is benefiting the company.

Garvin, Edmondson, and Gino propose a solution. First, understand the three building blocks required for creating learning organizations: 1) a supportive environment, 2) concrete learning processes, and 3) leadership that reinforces learning. Then use the authors' diagnostic tool, the Learning Organization Survey, to

determine how well your team, department, or entire company is performing with each building block.

By assessing performance on each building block, you pinpoint areas needing improvement, moving your company that much closer to the learning organization ideal.

Building Blocks of the Learning Organization

Organizational research over the past two decades has revealed three broad factors that are essential for organizational learning and adaptability: a supportive learning environment, concrete learning processes and practices, and leadership behavior that provides reinforcement. We refer to these as the *building blocks of the learning organization*. Each block and its discrete subcomponents, though vital to the whole, are independent and can be measured separately. This degree of granular analysis has not been previously available.

Our tool is structured around the three building blocks and allows companies to measure their learning proficiencies in great detail. As you shall see, organizations do not perform consistently across the three blocks, nor across the various subcategories and subcomponents. That fact suggests that different mechanisms are at work in each building-block area and that improving performance in each is likely to require distinct supporting activities. Companies, and units within them, will need to address their particular strengths and weaknesses to equip themselves for long-term learning.

Because all three building blocks are generic enough for managers and firms of all types to assess, our tool permits organizations and units to slice and dice the data in ways that are uniquely useful to them. They can develop profiles of their distinctive approaches to learning and then compare themselves with a benchmark group of respondents. To reveal the value of all these comparisons, let's look in depth at each of the building blocks of a learning organization.

Building block 1: A supportive learning environment

An environment that supports learning has four distinguishing characteristics.

Psychological safety. To learn, employees cannot fear being belittled or marginalized when they disagree with peers or authority figures, ask naive questions, own up to mistakes, or present a minority viewpoint. Instead, they must be comfortable expressing their thoughts about the work at hand.

Appreciation of differences. Learning occurs when people become aware of opposing ideas. Recognizing the value of competing functional outlooks and alternative worldviews increases energy and motivation, sparks fresh thinking, and prevents lethargy and drift.

Openness to new ideas. Learning is not simply about correcting mistakes and solving problems. It is also about crafting novel

approaches. Employees should be encouraged to take risks and explore the untested and unknown.

Time for reflection. All too many managers are judged by the sheer number of hours they work and the tasks they accomplish. When people are too busy or overstressed by deadlines and scheduling pressures, however, their ability to think analytically and creatively is compromised. They become less able to diagnose problems and learn from their experiences. Supportive learning environments allow time for a pause in the action and encourage thoughtful review of the organization's processes.

To change a culture of blame and silence about errors at Children's Hospitals and Clinics of Minnesota, COO Julie Morath instituted a new policy of "blameless reporting" that encouraged replacing threatening terms such as "errors" and "investigations" with less emotionally laden terms such as "accidents" and "analysis." For Morath, the culture of hospitals must be, as she told us, "one of everyone working together to understand safety, identify risks, and report them without fear of blame." The result was that people started to collaborate throughout the organization to talk about and change behaviors, policies, and systems that put patients at risk. Over time, these learning activities yielded measurable reductions in preventable deaths and illnesses at the institution.

Building block 2: Concrete learning processes and practices

A learning organization is not cultivated effortlessly. It arises from a series of concrete steps and widely distributed activities, not unlike the workings of business processes such as logistics, billing, order fulfillment, and product development. Learning processes involve the generation, collection, interpretation, and dissemination of information. They include experimentation to develop and test new products and services; intelligence gathering to keep track of competitive, customer, and technological trends; disciplined analysis and interpretation to identify and solve problems; and education and training to develop both new and established employees.

For maximum impact, knowledge must be shared in systematic and clearly defined ways. Sharing can take place among individuals, groups, or whole organizations. Knowledge can move laterally or vertically within a firm. The knowledge-sharing process can, for instance, be internally focused, with an eye toward taking corrective action. Right after a project is completed, the process might call for post-audits or reviews that are then shared with others engaged in similar tasks. Alternatively, knowledge sharing can be externally oriented—for instance, it might include regularly scheduled forums with customers or subject-matter experts to gain their perspectives on the company's activities or challenges. Together, these concrete processes ensure that essential information moves

quickly and efficiently into the hands and heads of those who need it.

Perhaps the best known example of this approach is the U.S.Army's After Action Review (AAR) process, now widely used by many companies, which involves a systematic debriefing after every mission, project, or critical activity. This process is framed by four simple questions: What did we set out to do? What actually happened? Why did it happen? What do we do next time? (Which activities do we sustain, and which do we improve?) In the army, lessons move quickly up and down the chain of command, and laterally through sanctioned websites. Then the results are codified by the Center for Army Lessons Learned, or CALL. Such dissemination and codification of learning is vital for any organization.

Building block 3: Leadership that reinforces learning

Organizational learning is strongly influenced by the behavior of leaders. When leaders actively question and listen to employees—and thereby prompt dialogue and debate—people in the institution feel encouraged to learn. If leaders signal the importance of spending time on problem identification, knowledge transfer, and reflective post-audits, these activities are likely to flourish. When people in power demonstrate through their own behavior a willingness to entertain alternative points of view, employees feel emboldened to offer new ideas and options.

Harvey Golub, former chief executive of American Express, was renowned for his ability to teach employees and managers. He pushed hard for active reasoning and forced managers to think creatively and in unexpected ways. A subordinate observed that he often "came at things from a different angle" to ensure that conventional approaches were not accepted without first being scrutinized. "I am far less interested in people having the right answer than in their thinking about issues the right way," Golub told us. "What criteria do they use? Why do they think the way they do? What alternatives have they considered? What premises do they have? What rocks are they standing on?" His questions were not designed to yield particular answers, but rather to generate truly open-minded discussion.

The three building blocks of organizational learning reinforce one another and, to some degree, overlap. Just as leadership behaviors help create and sustain supportive learning environments, such environments make it easier for managers and employees to execute concrete learning processes and practices smoothly and efficiently. Continuing the virtuous circle, concrete processes provide opportunities for leaders to behave in ways that foster learning and to cultivate that behavior in others.

Uses for the Organizational Learning Tool

Our diagnostic tool is designed to help you answer two questions about the organizational unit that you lead or in which you work: "To what extent is your unit functioning as a learning organization?" and "What are the relationships among the factors that affect learning in your unit?" People who complete the survey rate how accurately a series of brief, descriptive sentences in each of the three building blocks of learning describe their organization and its learning culture. For the list of statements in the complete survey and details about how it works, see the sidebar "Assess the Depth of Learning in Your Organization."

Assess the Depth of Learning in Your Organization

THIS DIAGNOSTIC SURVEY IS DESIGNED to help you determine how well your company functions as a learning organization. It is divided into three sections, each representing one building block of the learning organization. In the first two blocks, your task is to rate, on a scale of 1 to 7, how accurately each statement describes the organizational unit in which you work (with 7 being the most accurate). In the third block, your task is to rate how often the managers (or manager) to whom you report exemplify the behavior described on a scale of 1 to 5.

You should calculate a separate score for each factor by first reverse-scoring the negatively phrased items (marked with an asterisk*), and then computing an average for the scores of all items in each factor. To interpret your scores, you can compare them with benchmark data

that appear in the exhibit "Benchmark Scores for the Learning Organization Survey."

Building block 1: supportive learning environment

Psychological safety

In this unit, it is easy to speak up about what is on your mind.

If you make a mistake in this unit, it is often held against you.*

People in this unit are usually comfortable talking about problems and disagreements.

People in this unit are eager to share information about what does and doesn't work.

Keeping your cards close to your vest is the best way to get ahead in this unit.*

Appreciation of differences

Differences in opinion are welcome in this unit.

Unless an opinion is consistent with what most people in this unit believe, it won't be valued.*

This unit tends to handle differences of opinion privately or off-line, rather than addressing them directly with the group.*

In this unit, people are open to alternative ways of getting work done.

Openness to new ideas

In this unit, people value new ideas.

Unless an idea has been around for a long time, no one in this unit wants to hear it.*

In this unit, people are interested in better ways of doing things.

In this unit, people often resist untried approaches.*

Time for reflection

People in this unit are overly stressed.*

Despite the workload, people in this unit find time to review how the work is going.

In this unit, schedule pressure gets in the way of doing a good job.*

In this unit, people are too busy to invest time in improvement.*

There is simply no time for reflection in this unit.*

Building block 2: concrete learning processes and practices

Experimentation

This unit experiments frequently with new ways of working.

This unit experiments frequently with new product or service offerings.

This unit has a formal process for conducting and evaluating experiments or new ideas.

This unit frequently employs prototypes or simulations when trying out new ideas.

Information collection

This unit systematically collects information on:

- competitors
- customers
- economic and social trends
- technological trends

This unit frequently compares its performance with that of:

- competitors
- best-in-class organizations

Analysis

This unit engages in productive conflict and debate during discussions.

This unit seeks out dissenting views during discussions.

This unit never revisits well-established perspectives during discussions.*

This unit frequently identifies and discusses underlying assumptions that might affect key decisions.

This unit never pays attention to different views during discussions.*

Education and training

Newly hired employees in this unit receive adequate training.

Experienced employees in this unit receive:

- periodic training and training updates
- training when switching to a new position
- training when new initiatives are launched

In this unit, training is valued.

In this unit, time is made available for education and training activities.

Information transfer

This unit has forums for meeting with and learning from:

- experts from other departments, teams, or divisions
- experts from outside the organization
- customers and clients
- suppliers

This unit regularly shares information with networks of experts within the organization.

This unit regularly shares information with networks of experts outside the organization.

This unit quickly and accurately communicates new knowledge to key decision makers.

This unit regularly conducts post-audits and after-action reviews.

Building block 3: leadership that reinforces learning

My managers invite input from others in discussions.

My managers acknowledge their own limitations with respect to knowledge, information, or expertise.

My managers ask probing questions.

My managers listen attentively.

My managers encourage multiple points of view.

My managers provide time, resources, and venues for identifying problems and organizational challenges.

My managers provide time, resources, and venues for reflecting and improving on past performance.

My managers criticize views different from their own.*

* Reverse-scored items

There are two primary ways to use the survey. First, an individual can take it to get a quick sense of her work unit or project team. Second, several members of a unit can each complete the survey and average their scores. Either way, the next step is to compare individual or group self-evaluations with overall benchmark scores from our baseline group of organizations. The benchmark data are stratified into quartiles—that is, the bottom 25%, the next 25%, and so on—for each attribute, arrayed around a median (see the sidebar "Benchmark Scores for the Learning Organization Survey"). Once you have calculated your own scores, you can identify the quartile in which your scores fall and reflect on how they match your prior expectations about where you stand.

Benchmark Scores for the Learning Organization Survey

OUR BASELINE DATA WAS DERIVED from surveys of large groups of senior executives in a variety of industries who completed an eight-week general management program at Harvard Business School. We first conducted the survey in the spring of 2006 with 100 executives in order to evaluate the statistical properties of the survey and assess the underlying constructs. That autumn we surveyed another 125 senior executives to use as our benchmark data.

After you've taken the complete survey, compare the average scores for people in your group with the benchmark scores in the following chart. If your group's scores fall at or below the median in a particular building block or subcomponent—especially if they are in the bottom quartile—consider initiating an improvement effort in that area. One possibility is to assemble a team to brainstorm specific, concrete strategies for enhancing the area of weakness. In any building block or subcomponent where your group's scores fall above the median—especially if they are in the top quartile—consider partnering with other units in your organization that may benefit from specific, concrete strategies that you can articulate and model for them in the area of weakness.

Building blocks and their subcomponents	Scaled scores				
	Bottom quartile	Second quartile	Median	Third quartile	Top quartile
Supportive learning environment					
Psychological safety	31–66	67–75	76	77–86	87–100
Appreciation of differences	14–56	57–63	64	65–79	80–100
Openness to new ideas	38–80	81–89	90	91–95	96–100
Time for reflection	14–35	36–49	50	51–64	65–100
Learning environment composite	**31–61**	**62–70**	**71**	**72–79**	**80–90**
Concrete learning processes and practices					
Experimentation	18–53	54–70	71	72–82	83–100
Information collection	23–70	71–79	80	81–89	90–100
Analysis	19–56	57–70	71	72–86	87–100
Education and training	26–68	69–79	80	81–89	90–100
Information transfer	34–60	61–70	71	72–84	85–100
Learning processes composite	**31–62**	**63–73**	**74**	**75–82**	**83–97**
Leadership that reinforces learning					
Composite for this block	**33–66**	**67–75**	**76**	**77–82**	**83–100**

Note: The scaled scores for learning environment and learning processes were computed by multiplying each raw score on the seven-point scale by 100 and dividing it by seven. For learning leadership, which was based on a five-point scale, the divisor was five.

Having compared individual or unit scores with the benchmarks, it's possible to identify areas of excellence and opportunities for improvement. If employees in multiple units wish to take the survey, you can also make the comparisons unit-by-unit or companywide. Even if just two people from different parts of a firm compare scores, they can pinpoint cultural differences, commonalities, and things to learn from one another. They may also discover that their unit—or even the company—lags behind in many areas. By pooling individual

and unit scores, organizations as a whole can begin to address specific problems.

Holding Up the Mirror at Eutilize

Consider how managers from a major European public utility, which we will call Eutilize, used the survey to assess their company's readiness for and progress in becoming a learning organization. In the summer of 2006, 19 midlevel managers took the survey. Before learning their scores, participants were asked to estimate where they thought Eutilize would stand in relation to the benchmark results from other firms.

Virtually all the participants predicted average or better scores, in keeping with the company's espoused goal of using knowledge and best-practice transfers as a source of competitive advantage. But the results did not validate those predictions. To their great surprise, Eutilize's managers rated themselves below the median baseline scores in almost all categories. For example, out of a possible scaled score of 100, they had 68 on leadership, compared with the median benchmark score of 76. Similarly, they scored 58 on concrete learning processes (versus the median benchmark of 74) and 62 on supportive learning environment (versus the median of 71). These results revealed to the Eutilize managers that integrating systematic learning practices into their organization would take considerable work. However, the poorest-scoring

measures, such as experimentation and time for reflection, were common to both Eutilize and the baseline organizations. So Eutilize was not unusual in where it needed to improve, just in how much.

The portrait that emerged was not unexpected for a public utility that had long enjoyed monopolies in a small number of markets and that only recently had established units in other geographic areas. Eutilize's scores in the bottom quartile on openness to new ideas, experimentation, conflict and debate, and information transfer were evidence that changing the company's established culture would be a long haul.

Eutilize's managers also discovered the degree to which their mental models about their own ways of working were inaccurate. For example, they learned that many people in their firm believed that "analysis" was an area of strength for Eutilize, but they interpreted analysis to be merely number crunching. The survey results helped them to understand the term analysis more broadly—to think about the degree to which people test assumptions, engage in productive debate, and seek out dissenting views. Each of those areas was actually a weakness in the firm. This revelation led Eutilize's managers to understand that without a more open environment buttressed by the right processes and leadership, the company would have difficulty implementing a new strategy it had just adopted.

Eutilize's experience illustrates how our organizational learning tool prompts reflective discussion among managers about their leadership and organizational practices. Without concrete data, such reflection can become abstract and susceptible to idiosyncratic assessments and often emotional disagreements about the current state of affairs. With the survey data in hand, managers had a starting point for discussion, and participants were able to point to specific behaviors, practices, or events that might explain both high and low scores. The results also helped Eutilize's managers to identify the areas where their firm needed special attention.

Given that the survey-based scores derive from perceptions, the best use of the data at Eutilize was, as it would be at any company, to initiate conversation and self-reflection, not to be the sole basis for decision making. Discussions had to be conducted with a healthy balance of what scholars call "advocacy and inquiry." The communication allowed people the latitude to assert their personal observations and preferred suggestions for action, but it also ensured that everyone took the time to carefully consider viewpoints that were not their own. In addition, managers learned the importance of using concrete examples to illustrate interpretations, to refer to specific practices or processes, and to clarify observations. Finally, the participants from Eutilize identified specific actions to be taken. Had they not done so, the discussions could have deteriorated into unproductive complaint sessions.

Moving Forward: Four Principles

Our experiences developing, testing, and using this survey have provided us with several additional insights for managers who seek to cultivate learning organizations.

Leadership alone is insufficient

By modeling desired behaviors—open-minded questioning, thoughtful listening, consideration of multiple options, and acceptance of opposing points of view—leaders are indeed likely to foster greater learning. However, learning-oriented leadership behaviors alone are not enough. The cultural and process dimensions of learning appear to require more explicit, targeted interventions. We studied dozens of organizations in depth when developing our survey questions and then used the instrument with four firms that had diverse sizes, locations, and missions. All four had higher scores in learning leadership than in concrete learning processes or supportive learning environment. Performance often varies from category to category. This suggests that installing formal learning processes and cultivating a supportive learning climate requires steps beyond simply modifying leadership behavior.

Organizations are not monolithic

Managers must be sensitive to differences among departmental processes and behaviors as they strive to build learning organizations. Groups may vary in their focus or learning

maturity. Managers need to be especially sensitive to local cultures of learning, which can vary widely across units. For example, an early study of medical errors documented significant differences in rates of reported mistakes among nursing units at the same hospital, reflecting variations in norms and behaviors established by unit managers. In most settings, a one-size-fits-all strategy for building a learning organization is unlikely to be successful.

Comparative performance is the critical scorecard

Simply because an organization scores itself highly in a certain area of learning behavior or processes does not make that area a source of competitive advantage. Surprisingly, most of the organizations we surveyed identified the very same domains as their areas of strength. “Openness to new ideas” and “education and training” almost universally scored higher than other attributes or categories, probably because of their obvious links to organizational improvement and personal development. A high score therefore conveys limited information about performance. The most important scores on critical learning attributes are relative—how your organization compares with competitors or benchmark data.

Learning is multidimensional

All too often, companies’ efforts to improve learning are concentrated in a single area—more time for reflection,

perhaps, or greater use of post-audits and after-action reviews. Our analysis suggests, however, that each of the building blocks of a learning organization (environment, processes, and leadership behaviors) is itself multidimensional and that those elements respond to different forces. You can enhance learning in an organization in various ways, depending on which subcomponent you emphasize—for example, when it comes to improving the learning environment, one company might want to focus on psychological safety and another on time for reflection. Managers need to be thoughtful when selecting the levers of change and should think broadly about the available options. Our survey opens up the menu of possibilities.

The goal of our organizational learning tool is to promote dialogue, not critique. All the organizations we studied found that reviewing their survey scores was a chance to look into a mirror. The most productive discussions were those where managers wrestled with the implications of their scores, especially the comparative dimensions (differences by level, subunit, and so forth), instead of simply assessing performance harshly or favorably. These managers sought to understand their organizations' strengths and weaknesses and to paint an honest picture of their cultures and leadership. Not surprisingly, we believe that the learning organization survey is best used not merely as a report card or bottom-line score but

rather as a diagnostic instrument—in other words, as a tool to foster learning.

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Why Organizations Don’t Learn

by Francesca Gino and Bradley Staats

VIRTUALLY ALL LEADERS BELIEVE that to stay competitive, their enterprises must learn and improve every day. But even companies revered for their dedication to continuous learning find it difficult to always practice what they preach.

Consider Toyota: Continuous improvement is one of the pillars of its famed business philosophy. After serious problems in late 2009 led Toyota to recall more than 9 million vehicles worldwide, its leaders confessed that their quest to become the world’s largest automobile producer had compromised their devotion to learning.

Why do companies struggle to become or remain “learning organizations”? Through research conducted over the past decade across a wide range of industries, we have drawn this conclusion: Biases cause people to focus too much on success, take action too quickly, try too hard to fit in, and depend too much on experts. In this article we discuss how these deeply

ingrained human tendencies interfere with learning—and how they can be countered.

Bias Toward Success

Leaders across organizations may say that learning comes from failure, but their actions show a preoccupation with success. This focus is not surprising, but it is often excessive and impedes learning by raising four challenges.

Challenge #1: Fear of failure

Failure can trigger a torrent of painful emotions—hurt, anger, shame, even depression. As a result, most of us try to avoid mistakes; when they do happen, we try to sweep them under the rug. This natural tendency is heightened in companies whose leaders have, often unconsciously, institutionalized a fear of failure. They structure projects so that no time or money is available for experimentation, and they award bonuses and promotions to those who deliver according to plan. But organizations don't develop new capabilities—or take appropriate risks—unless managers tolerate failure and insist that it be openly discussed.

Challenge #2: A fixed mindset

The psychologist Carol Dweck identified two basic mindsets with which people approach their lives: "fixed" and "growth." People who have a *fixed mindset* believe that intelligence and

talents are largely a matter of genetics; you either have them or you don't. They aim to appear smart at all costs and see failure as something to be avoided, fearing it will make them seem incompetent. A fixed mindset limits the ability to learn because it makes individuals focus too much on performing well.

By contrast, people who have a *growth mindset* seek challenges and learning opportunities. They believe that no matter how good you are, you can always get better through effort and practice. They don't see failure as a sign of inadequacy and are happy to take risks (see the sidebar "The Neural Implications of Different Mindsets").

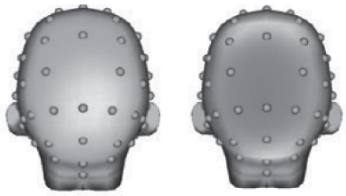
The Neural Implications of Different Mindsets

WHAT HAPPENS INSIDE OUR BRAINS when we make mistakes? That depends on our ideas about learning and intelligence.

Individuals with a *growth mindset,* who believe that intelligence and talents can be enhanced through effort, regard mistakes as opportunities to learn and improve. By contrast, individuals with a *fixed mindset,* who believe that intelligence and talents are innate and unchangeable, think mistakes signal a lack of ability.

Jason S. Moser and his colleagues at Michigan State University examined the neural mechanisms underlying these differing reactions to mistakes. The picture below illustrates neural activity in people performing a task and making errors. Neural activity is shown in gray —darker shades correspond to higher levels of neural activity. Those with a fixed mindset display considerably less brain activity than

those with a growth mindset, who actively process errors to learn from them.



Fixed Growth

Challenge #3: Overreliance on past performance

When making hiring and promotion decisions, leaders often put too much emphasis on performance and not enough on the potential to learn. Over time, Egon Zehnder, a global executive search firm, had developed a sophisticated means of evaluating candidates that considered not only their past achievements but also their competencies. However, it found that in numerous instances, candidates who looked equally good on paper performed differently on the job. Why?

Idea in Brief

The Problem

Even companies dedicated to continuous improvement struggle to stay on the path. Research suggests that's because of deeply ingrained biases: We focus too much on success, take action too quickly, try too hard to fit in, and depend too much on outside experts.

The Impediments

These biases manifest themselves in 10 conditions that impede learning. These include fear of failure, insufficient reflection,

believing that we need to conform, and inadequate frontline involvement in addressing problems.

The Solutions

Leaders can use a variety of strategies to counter the biases, including stressing that mistakes are learning opportunities, building more breaks into schedules, helping employees identify and apply their personal strengths, and encouraging employees to own problems that affect them.

A partner at the firm, Karena Strella, and her team believed the answer was individuals' potential for improvement. After a two-year project that drew on academic research and interviews, they identified four elements that make up potential: curiosity, insight, engagement, and determination. They developed interview questions to get at these elements, along with psychometric measures applied via questionnaires. This new model now plays a key role in the search firm's assessments of job candidates. Egon Zehnder has found that high-potential candidates perform better than their peers with less potential, thanks to their openness to acquiring new skills and their thirst for learning.

Challenge #4: The attribution bias

It is common for people to ascribe their successes to hard work, brilliance, and skill rather than luck; however, they blame their failures on bad fortune. This phenomenon, known as the *attribution bias,* hinders learning (see "Why Leaders Don't

Learn from Success," HBR, April 2011). In fact, unless people recognize that failure resulted from their own actions, they do not learn from their mistakes. In a study we conducted with Chris Myers, we asked participants to work on two different decision-making tasks spaced one week apart. Each task had a correct solution, but only a few people were able to identify it. We found that participants who took responsibility for doing poorly on the first activity were almost three times as likely to succeed on the second one. They learned from their failure and made better decisions as a result.

Leaders can use the following methods to encourage others to find the silver lining in failures, adopt a growth mindset, focus on potential, and overcome the attribution bias.

Destigmatize failure

Leaders must constantly emphasize that mistakes are learning opportunities rather than cause for embarrassment or punishment, and they must act in ways that reinforce that message. Ashley Good, the founder of Fail Forward, a Toronto-based consulting firm that helps companies learn how to benefit from blunders, often begins by asking a client's employees questions such as "Do you take risks in the course of your work?" and "Is learning from failure formally supported?" The answers help leaders understand whether their company has a culture in which failure is openly discussed and accepted, and what steps they should take if not.

Embrace and teach a growth mindset

Leaders need to challenge their own thinking about whether people can improve. Research by Peter Heslin and colleagues found that managers with a growth mindset notice improvement in their employees, while those with a fixed mindset do not because they are stuck in their initial impressions.

When people are taught a growth mindset, they become more aware of opportunities for self-improvement, more willing to embrace challenges, and more likely to persist when they confront obstacles. So tell employees that you believe they can expand their talents if they apply themselves. Reinforce that message by educating them about the research on growth mindsets and relaying stories about high-performing employees who were dedicated to their jobs and developed skills over time. Finally, in formal and informal performance reviews, praise their efforts to learn.

Consider potential when hiring and promoting

Doing this—and making it clear to employees that it is being done—will help counter managers' incorrect first impressions, along with their natural inclination to hire and promote people like themselves. It will also encourage employees to try new things and seek support in developing their competencies. Considering someone's potential to improve will almost certainly surface candidates who otherwise would be

overlooked for jobs and promotions. When Egon Zehnder began including potential in assessing possible contenders for managerial positions, the resulting pools of candidates were more diverse in terms of race and gender.

Use a data-driven approach to identify what caused success or failure

Most leaders know that data is critical to uncovering the true causes of successful performance, but they don't always insist on collecting and analyzing the necessary information. One exception is Ed Catmull, the president of Pixar and Disney Animation Studios. He is a big believer in conducting data-based postmortems of projects—including successful ones—and stresses that even creative endeavors like moviemaking involve activities and deliverables that can be measured. "Data can show things in a neutral way, which can stimulate discussion and challenge assumptions arising from personal impressions," he says (see "How Pixar Fosters Collective Creativity," HBR, September 2008).

Of course, collecting the data is one thing; accepting what the data tells us is another. We have both worked with all too many organizations where "data-driven decision making" is code for contorting the facts until they reveal whatever senior management expects to see. It's the role of leaders to ensure that they and other executives are sensitive to this tendency and don't succumb to it.

Bias Toward Action

How do you usually respond when you are faced with a problem in your organization? If you're like most managers, you choose to take some kind of action. You work harder, put in even longer hours, and place added stress on yourself. You're more comfortable doing something, even if it is counterproductive and doing nothing is the best course of action.

Consider professional soccer goalies and their strategies for defending against penalty kicks. According to a study by Michael Bar-Eli and colleagues, those who stay in the center of the goal, rather than leaping to the right or left, perform the best: They have a 33.3% chance of stopping the ball. Nonetheless, goalies stay in the center only 6.3% of the time. Why? Because it looks and feels better to have missed the ball by diving, even if it turns out to have been in the wrong direction, than to have stood still and watched the ball sail by.

The same aversion to inaction holds true in the business world. When we surveyed participants in our executive education classes, we found that managers feel more productive executing tasks than planning them. Especially when under time pressure, they perceive planning to be wasted effort. This bias toward action is detrimental to improvement for two reasons.

Challenge #1: Exhaustion

Not surprisingly, exhausted workers are too tired to learn new things or apply what they already know. For example, research conducted by one of us (Brad) with Hengchen Dai, Katherine Milkman, and David Hofmann found that hand-washing compliance by hospital personnel—widely known to be critical for preventing hospital-acquired infections—fell nine percentage points, on average, over a typical 12-hour shift. The drop was even greater when healthcare workers had a particularly busy shift. However, compliance increased when the workers had more time off between shifts.

Challenge #2: Lack of reflection

Being "always on" doesn't give workers time to reflect on what they did well and what they did wrong.

Research that we conducted at a tech-support call center of Wipro, a global IT, consulting, and outsourcing company based in India, illustrates this. We studied employees during their initial weeks of training. All went through the same technical training, with a key difference. On the sixth through the 16th days of the program, some workers spent the last 15 minutes of each day reflecting on and writing about the lessons they had learned that day. The others, the control group, just kept working for another 15 minutes. On the final training test at the end of one month, workers who had been given time to reflect performed more than 20% better, on average, than those in the control group. Several lab studies we conducted on college

students and employed individuals in a variety of organizations produced similar results.

The following antidotes to the bias for action may sound obvious, but they are infrequently applied.

Build breaks into the schedule

Make sure workers take sufficient time to rejuvenate and reflect during the workday and between shifts. In many organizations, hourly workers are entitled or actually required to take periodic breaks.

However, our research suggests that companies should provide even more downtime than they do. At Morning Star, a vertically integrated tomato-processing company, the workers in the fields not only get mandated breaks, but they also sometimes have to suspend their work for periods that can last nearly an hour, as a result of glitches in other parts of the system (such as a tomato trailer's failure to show up). Company data that we examined revealed that workers were actually more productive over a 12-hour shift if their day included such unexpected breaks. The message: Leaders should conduct experiments to determine the optimal number and length of breaks.

For many management and knowledge-worker positions, of course, there are no mandatory breaks. Individuals have to decide for themselves whether to pause and recharge. Virtually everyone in such jobs recognizes the benefits of watercooler

conversations for learning and exchanging ideas. People also agree that it's important to get enough sleep and take vacations. Yet many of us don't practice what we preach. A recent survey conducted by Staples drives this point home. When Staples asked more than 200 office workers in the United States and Canada about their work habits, more than a quarter reported that they took no break other than lunch. The vast majority of those cited guilt as the main reason. Yet 90% of the bosses surveyed said that they encouraged breaks, and 86% of employees agreed that brief respites from work make them more productive.

So urge employees to take breaks and vacations, and set an example. Research shows that the restorative benefits are greatest when you get out of your office or go for a walk. Don't have lunch at your desk then; head outside for a stroll instead, especially in a park. It will put you in a better mood and reinvigorate you, allowing you to accomplish and learn more.

Take time to just think

In the same way that you block out time on your calendar to plan an initiative or a presentation, you should block out a short period each day—even just 20 to 30 minutes—to either plan your agenda (in the early morning) or think about how the day went (in the late afternoon). If time is really scarce, try to reflect on your way to or from work. A study of commuters in the United Kingdom that we conducted with Julia Lee and Jon

Jachimowicz showed that those who were encouraged (through text messages) to plan for their upcoming day during their journeys were happier, less burned-out, and more productive than people in a control group.

Leaders can help by thoughtfully structuring the workweek—for instance, by insisting that no meetings be held on Fridays, as Tommy Hilfiger and other firms have done.

Encourage reflection after doing

Through reflection, we can better understand the actions we're considering and their likelihood of keeping us productive. "Don't avoid thinking by being busy," a wise mentor once told one of us.

Some organizations are finding ways to incorporate reflection into their regular activities. One powerful approach treats reflection as a post hoc analytical tool for understanding the drivers of success and failure. The U.S. Army is well known for its after-action reviews (AARs). To ensure that a rigorous process is followed, AARs are run by a facilitator rather than the project's leader. An effective AAR involves comparing what actually happened with what should or could have happened and then carefully diagnosing the gap, be it positive or negative.

Whether reflecting with a group or by yourself, keep a few things in mind. First, remember that the goal is to learn. That means being honest with yourself—something an outside

facilitator can help ensure in group settings. Second, try to get a full and accurate picture of what occurred. That requires considering multiple perspectives (because we all have incomplete and often biased opinions) and using data. Third, work to get to the root of why things played out the way they did. Finally, think about how the work could be improved. Beyond the obvious fixes to the existing process, take time to imagine how you would do things completely differently if you could.

Bias Toward Fitting In

When we join an organization, it's natural to want to fit in. But this tendency leads to two challenges to learning.

Challenge #1: Believing we need to conform

Early in life, we realize that there are tangible benefits to be gained from following social and organizational norms and rules. As a result, we make a significant effort to learn and adhere to written and unwritten codes of behavior at work. But here's the catch: Doing so limits what we bring to the organization. As Steve Jobs famously said, "It doesn't make sense to hire smart people and tell them what to do; we hire smart people so they can tell us what to do." In fact, being unafraid to stand out can actually garner respect, despite beliefs to the contrary. Research conducted by one of us (Francesca) with Silvia Bellezza and Anat Keinan found that

nonconforming behaviors (such as dressing down at a business meeting or using one's own PowerPoint theme rather than the organization's) raise others' estimation of a person's competence and status.

Challenge #2: Failure to use one's strengths

When employees conform to what they think the organization wants, they are less likely to be themselves and to draw on their strengths. A Gallup survey of thousands of people across the globe shows that an affirmative answer to the question "At work, do you have an opportunity to do what you do best every day?" is a significant predictor of engagement and high operational performance. When people feel free to stand apart from the crowd, they can exercise their signature strengths (such as curiosity, love for learning, and perseverance), identify opportunities for improvement, and suggest ways to exploit them. But all too often, individuals are afraid of rocking the boat.

Leaders can use several methods to combat the bias toward fitting in.

Encourage people to cultivate their strengths

To motivate and support employees, some companies allow them to spend a certain portion of their time doing work of their own choosing. Although this is a worthwhile practice,

firms should strive to help individuals apply their strengths every day as a normal part of their jobs.

Toward that end, managers should help individuals identify and develop their fortes—and not just by discussing them in annual performance reviews. One effective method is to give someone an "appreciation jolt" in the form of positive feedback. It's particularly potent when friends, family, mentors, and coworkers share stories about how the person excels. These stories, our research shows, trigger positive emotions, cause us to realize the impact that we have on others, and make us more likely to continue capitalizing on our signature strengths rather than just trying to fit in.

This approach helped a major global consulting company address a problem: Its employees tended to view their jobs as money-for-labor contracts and often would do the bare minimum instead of seeking to create win-win outcomes for themselves and the firm. We found that the jolts—delivered during the onboarding, or orientation, process—gave new hires a more personal, less transactional relationship with the organization and correlated with reduced burnout, less turnover a year after the intervention, and improved performance. Earlier work that we did at an Indian call center generated similar results: A focus on individuals and their strengths during the onboarding process was associated with significantly lower turnover and higher customer satisfaction.

To understand whether their organization is helping people identify and leverage their strengths, managers should ask themselves the following questions: Do I know what my employees' talents and passions are? Am I talking to them about what they do well and where they can improve? Do our goals and objectives include making maximum use of employees' strengths?

Increase awareness and engage workers

If people don't see an issue, you can't expect them to speak up about it. Lowe's, the home-improvement retail chain, prides itself on its commitment to worker safety, and most employees report in anonymous surveys that they feel safe on the job. Yet for Hank Jones, the company's director of safety and hazardous materials, even one safety lapse is too many. His team takes a multipronged approach to get employees to speak up about potential safety hazards in stores. During meetings with workers throughout the organization, team members increase awareness of specific problems by asking questions such as "Do you know how many people we injured last year, and do you know where those injuries occurred?" The company has also started publishing safety outcome data in its annual social responsibility report.

In addition, Jones changed the way managers run safety meetings: Instead of reading the latest safety policies or rules, they ask questions or pose issues and give the group time to

tackle them. Meetings become less about passively learning material and more about actively improving processes.

Model good behavior

During store walks, Lowe's executives look for opportunities to highlight the importance of safety and get to the root cause of unsafe behavior, including their own. When one senior executive stepped onto a pallet—a clear hazard—a store associate asked him to get down. The executive complied, hugged the associate, and thanked him in front of others, sending the message that the organization values employees who speak up.

Bias Toward Experts

Beginning in the early 20th century, the scientific management movement introduced a rigorous approach to examining how organizations operate. In the process, though, it solidified the notion that experts are the best source of ideas for improvement. Today companies continue to call in consultants, industrial engineers, Six Sigma teams, and the like when improvement is needed. The bias toward experts creates two challenges.

Challenge #1: An overly narrow view of expertise

Organizations tend to define "expert" too narrowly, relying on indicators such as titles, degrees, and years of experience.

However, experience is a multidimensional construct. Different types of experience—including time spent on the front line, with a customer or working with particular people—contribute to understanding a problem in detail and creating a solution.

A bias toward experts can also lead people to misunderstand the potential drawbacks that come with increased time and practice in the job. Though experience improves efficiency and effectiveness, it can also make people more resistant to change and more likely to dismiss information that conflicts with their views (see the sidebar "Blinded by Expertise").

Blinded by Expertise

TO EXAMINE HOW EXPERIENCE CAN increase resistance to change, we looked at the ways cardiologists and investors with different levels of experience responded to bad news that required some professional judgment.

One standard cardiology procedure is placing coronary stents in constricted arteries to maintain proper blood flow. In the early 2000s a new kind of stent, with a drug-eluting coating, was released to the market. Because reimbursement rates were comparable for the new and the traditional devices, cardiologists could primarily consider the medical merits when deciding which one to use.

In reaction to evidence that the drug-eluting stents might be dangerous in certain situations, an advisory panel of the U.S. Food and Drug Administration recommended in late 2006 that they not be used in off-label applications. But doctors were not obligated to follow this advice. Our empirical analysis of data from before and after this "shock" revealed that experienced cardiologists were less likely

than newer doctors to respond to the recommendation by discontinuing their overall use of drug-eluting stents.

Since the data was unclear as to whether drug-eluting or non-drug-eluting stents were better for patient outcomes, we conducted follow-up laboratory studies with people making investment decisions and receiving unequivocally negative news. We found the same results: Decision makers who had significant expertise weren't as willing to heed the negative information as their less experienced peers were. The message: If you are not careful, your experience may hinder your learning.

Challenge #2: Inadequate frontline involvement

Frontline employees—the people directly involved in creating, selling, delivering, and servicing offerings and interacting with customers—are frequently in the best position to spot and solve problems. Too often, though, they aren't empowered to do so. Even in organizations that espouse "lean thinking"—a process-improvement approach that is intended to involve all employees—standard work practices seldom change, and only expert recommendations are implemented.

The following tactics can help organizations overcome the tendency to turn to experts.

Encourage workers to own problems that affect them

Make sure that your organization is adhering to the principle that the person who experiences a problem should fix it when and where it occurs. This prevents workers from relying too heavily on experts and helps them avoid making the same mistakes again. Tackling the problem immediately, when the

relevant information is still fresh, increases the chances that it will be successfully resolved.

For example, at Morning Star's tomato-processing facilities, individuals are expected not only to meet specific targets for themselves but also to look for ways to improve their work and the overall performance of the operation. When something goes awry on a worker's watch, she is responsible for fixing it. That might involve enlisting others to help or even going out to purchase new equipment (although there are understood limits to what workers can spend without authorization). The company encourages problem-solving behavior not only through its culture but also through its compensation practices: Pay is based both on meeting goals and on improving over time.

Give workers different kinds of experience

In our research at a Japanese bank, we looked at how data-entry workers performed when they were doing the same task repeatedly ("specialized experience") and when they were switching between different tasks ("varied experience"). We found that over the course of a single day, a specialized approach was fastest. But over time, switching activities across days promoted learning and kept workers more engaged. Both specialization *and* variety were important to learning.

Further Reading

For more about learning organizations, see these articles at HBR.org.

- "Leaders as Decision Architects," John Beshears and Francesca Gino
- "21st-Century Talent Spotting," Claudio Fernández-Aráoz
- "Strategies for Learning from Failure," Amy C. Edmondson
- "Is Yours a Learning Organization?" David A. Garvin, Amy C. Edmondson, and Francesca Gino
- "Unleashing the Power of Learning: An Interview with British Petroleum's John Browne," Steven Prokesch
- "Building a Learning Organization," David A. Garvin

In addition, giving workers new types of experience and greater depth within each of them is valuable. One of us (Brad), along with Jonathan Clark and Robert Huckman, studied the operational performance of radiologists who read digital images (X-rays or CT scans) remotely for hospitals. Although a doctor's total experience mattered, another important predictor of performance over time was how often that individual worked with a given hospital. As the radiologist gained experience with a particular hospital, he could respond more quickly to its requests and help it improve its processes.

Yet another factor that affects improvement is team members' familiarity with one another. In studies across settings—including software development companies,

consulting firms, health care organizations, and laboratories—we've found that working repeatedly with the same people can enhance coordination, optimize the use of valuable expertise residing within a group, speed the response to new circumstances, and improve how people combine their knowledge to solve problems effectively. In light of research showing that software teams were more likely to deliver projects on budget and with higher quality when their members had prior experience working together than when they did not, Wipro began staffing its projects accordingly.

Given such findings, leaders should strive to deepen their understanding of the kinds of industry, customer, and team experiences that affect their operating environments. They should then use this information to develop employees, track their experience portfolios, and deploy them strategically. Companies may have to change their enterprise systems, analytics capabilities, and staffing models. But the investment will help them build a richer understanding of how to improve learning and performance over time.

Empower employees to use their experience

Organizations should aggressively seek to identify and remove barriers that prevent individuals from using their expertise. Solving the customer's problems in innovative, value-creating ways—not navigating organizational impediments—should be the challenging part of one's job. Ethan Bernstein found that

employees at a leading global manufacturer were working less productively when managers were watching them (see “The Transparency Trap,” HBR, October 2014). The company claimed to be in the “lean camp,” but its practices suggested otherwise: For example, workers were not sharing their ideas for improving processes with others. Bernstein’s innovative solution was to put curtains around a factory production line so that employees could work in privacy. The result: Productivity increased significantly. Leaders should identify ways they can truly empower employees—whether by giving them more privacy, publicly acknowledging their contributions, or providing monetary rewards.

It may be cheaper and easier in the short run to ignore failures, schedule work so that there’s no time for reflection, require compliance with organizational norms, and turn to experts for quick solutions. But these short-term approaches will limit the organization’s ability to learn. If leaders institute ways to counter the four biases we have identified, they will unleash the power of learning throughout their operations. Only then will their companies truly improve continuously.

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The Transformer CLO

by Abbie Lundberg and George Westerman

IN TODAY'S DYNAMIC BUSINESS ENVIRONMENT, workplace learning has become a key lever for success. And with that shift, the traditional role of the chief learning officer is changing. No longer are CLOs responsible just for training—making skills-based and compliance-oriented courses available to employees and perhaps running leadership-development programs. Instead, they're embracing a more powerful role in which they reshape capabilities and organizational culture. We call this new type of leader the *transformer CLO*.

Transformer CLOs are strong senior managers whose mission is to help their companies and their employees thrive, even as technologies, business practices, and whole industries undergo rapid change. The transformer CLO role is not reserved for the lucky few whose CEOs see learning and development as essential; any CLO can take steps to fundamentally change the nature of learning in an organization.

We recently conducted extensive interviews with 21 senior learning officers at 19 large companies to find out how they

conceive of their roles and organizations. This research, which builds on our prior work on digital leadership and culture, revealed that transformer CLOs are driving three principal types of change in their enterprises. They're transforming their organizations' *learning goals*, shifting the focus from the development of skills to the development of mindsets and capabilities that will help workers perform well now and adapt smoothly in the future. They're transforming their organizations' *learning methods*, making them more experiential and immediate, and atomizing content for delivery when and where it's needed. And they're transforming their organizations' *learning departments*, making them leaner, more agile, and more strategic.

Transforming Learning Goals

The need for organizations to become more adaptable means changing the goals of corporate learning. Instead of narrowly focusing on job- or compliance-related training for all but their high-potential leaders, organizations should cultivate every employee's ability to explore, learn, and grow. The objective is not only to train people but also to position the company for success. To achieve this, CLOs should strive to do the following:

Reshape leadership development

Creating a true learning organization starts at the top, with preparing executives to lead in new ways. One company that has

done this well recently is Standard Chartered, a multinational financial-services company. Three years ago, under a new CEO, Standard Chartered launched a strategy that fundamentally changed the way it does business—and required its leaders to build new strengths. “We’d been doing executive development for years,” said Ewan Clark, the company’s global head of leadership effectiveness and organizational development. “But a lot of it had been about either pure self-actualization or aspects of coaching. This time we’ve put the organizational agenda right in the center of executive development, and we’ve said that leadership is about developing the skills, capabilities, and value behaviors to lead this agenda.”

As part of that effort, the company began teaching leaders to augment their experience and intuition with investigation, experimentation, and data-driven analysis when making decisions about their parts of the organization. Their instructions, according to Clark, were straightforward: “Articulate a hypothesis. Go out and experiment. And if it doesn’t work, then why not? What did you learn? Add to it. Capture your learning. Share it with other people.” This new approach required changes in the leaders’ mindsets, not just their skills and procedures.

Idea in Brief

The Situation

The fast-changing nature of business today means that employees' continual learning is vital for organizational success.

The Response

Chief learning officers are assuming a more expansive role, aiming not only to train employees but also to transform their organizations' capabilities and make learning an integral part of the company's strategic agenda.

The Specifics

Extensive interviews at 19 large companies revealed that "transformer CLOs"—those who are embracing this expanded role—are driving changes in their enterprises' learning goals, learning methods, and learning departments.

It's not enough, though, to improve leadership capabilities at the very top of the organization. To effect widespread change, organizations need strong leadership to cascade down. Cargill, a privately held food and agriculture business, achieved this by democratizing learning. As Julie Dervin, the company's global head of corporate learning and development, told us, "We really only had the capacity to reach about 10% to 15% of the total relevant population in a given year when delivering a particular learning program. Unintentionally, we were creating a learning culture where only a select few got access to high-quality training." Dervin and her team resolved to fix that problem. "We've been fundamentally changing how we design, deliver, and shape those learning experiences to be able to reach exponentially more learners with high-impact learning," she said.

Concentrate on capabilities, not competence

In their change programs, transformer CLOs focus less on teaching currently needed skills and more on developing mindsets and behaviors that can enable employees to perform well in tasks that may not yet be defined. This shift may also mean moving away from comprehensive skills inventories and competency maps, which can lead people to check boxes rather than build capabilities. “We don’t really know enough about what the world will look like in the next couple of years to be able to predict exactly what skills we will need,” said Amelie Villeneuve, the head of the corporate university at UBS, the multinational financial-services firm. “If you focus on building individual microskills, you may be missing the bigger picture.”

Emphasize digital thinking

The transformer CLOs we interviewed have sought to develop digital awareness and aptitude in their employees. Singapore-based DBS Bank, for example, created a learning curriculum that aims to build seven priority skills for digital-business success. (See the exhibit “Vital skills for a digital world.”) “While not everyone needs to be an expert at each of these,” said David Gledhill, who served as the company’s chief information officer until August 2019, “we want them to know enough so that they understand the transformation we’re driving and contribute great ideas.”

Vital skills for a digital world

To equip its employees for success in today's digital business environment, DBS Bank focuses on imparting skills in seven areas.

Source: Adapted from company documents

One priority, for instance, is to get people more comfortable using data in decision-making. Data-driven thinking is key for almost everyone in an organization, but in different ways. Frontline sales and service reps need to be aware of information about customer preferences and behaviors. Executives must learn to trust and value data even when it contradicts their past experiences and gut feelings.

Leaders often don't know what to do with all the data that digital innovations are making available to them, said Nancy Robert, who, as the executive vice president of the American Nurses Association, led the design and delivery of training for millions of the organization's members. As Robert put it, nurses don't necessarily have the "digital-data competency" to answer the questions that confront them. "How am I going to interpret that data and integrate it into the rest of the care?" she said. "That takes a very different cognitive skill."

Cultivate curiosity and a growth mindset

CLOs can amplify their teams' energies and capabilities by fostering a "pull" model of learning, in which employees set their own agendas for gaining knowledge and skills. Doing that, however, requires an environment that sparks employees' curiosity and ignites in them the desire to learn and grow. Villeneuve has worked on this at UBS and previously at Google, where, she said, she learned how it is possible to "accelerate wisdom more effectively by providing a series of contexts where people can play and learn at the same time."

Leaders at DBS Bank launched a number of programs to find out what would inspire curiosity among their employees. One notable success is GANDALF Scholars, in which employees can apply to receive grants of $1,000 toward training on any work-related topic, as long as they agree to teach what they learn to at least 10 other people.

When you engage employees in teaching, as DBS is doing, you expand and deepen learning. Rahul Varma, the senior managing director for talent at Accenture, calls this a “leaders teaching leaders” philosophy. “You learn the most,” he said, “when you actually have to teach somebody what you learn.” This approach turns the natural curiosity and energy of any single employee into learning opportunities for many others. It certainly seems to be working at DBS: As of early 2019, 120 grant recipients had gone on to train more than 13,500 people—4,000 in person and the rest through digital channels. According to Gledhill, many GANDALF Scholars report that the teaching component of the program is their favorite part. “What they enjoyed most,” he said, “was the empowerment.”

UBS, DBS, Accenture, and other companies that have embraced a growth mindset subscribe to two beliefs: that everyone’s abilities can and must be developed if the organization is to thrive in a fast-moving environment, and that innate talent is just the starting point. But for a growth mindset to become part of the company’s culture, all employees must internalize those beliefs. That won’t happen unless learning is pervasive, available to everybody who might benefit from it. And that requires rethinking the way learning is delivered.

Transforming Learning Methods

Until recently, providing learning to all employees was too expensive, and there weren’t enough trainers. Employees almost

always had to be physically present at training sessions, which often meant traveling and missing time at work. That naturally limited the number of participants, making learning an exclusive rather than a democratic opportunity.

Now things have changed. Peer teaching greatly expands the number of trainers and expert content developers. And digital instruction expands the reach of learning opportunities to more employees without the company's having to worry about enrollment numbers, scheduling conflicts, or travel costs. Employees can access learning when and where they need it, often from colleagues who live the topic every day.

Transformer CLOs are taking advantage of all these developments. Perhaps most visibly, they are moving away from traditional classroom training in which people are exposed to the same content for the same amount of time regardless of their particular needs and levels of understanding. Instead, these CLOs are personalizing, digitizing, and atomizing learning. They are shifting their attention from specific courses to the whole learning experience.

To accommodate the different preferences employees have for how they consume and absorb information, a growing number of companies now make training available through a variety of media—text, audio, video, and more. Transformer CLOs go even further. They're introducing innovations such as programs that set aside learning time on people's calendars, and mobile apps that pose leadership questions to managers during their day.

They're offering games and simulations and encouraging the company's own subject-matter experts to produce YouTube-type instructional videos. They're even exploring the use of artificial intelligence to develop recommendation engines that, guided by individual and peer behavior, will suggest tailored learning activities to employees. In short, transformer CLOs do everything possible to create engaging and effective experiences that meet employees wherever they happen to be, geographically, temporally, or intellectually.

Optimize the inventory of learning resources

CLOs need to be selective about what learning materials to stock and how to supply them. At GE Digital, Heather Whiteman, the company's former head of learning, used analytics with her team to study hundreds of courses taken by thousands of employees —and then systematically rooted out those found lacking, not just in terms of usage and ratings but in their effects on employee growth. "If a course didn't move the dial for capabilities that lead to performance," she told us, "we would drop it in favor of one that did."

Similarly, Villeneuve and her team at UBS used analytics to optimize the learning inventory. The bank had a wealth of training materials online, but analysis showed that many employees who searched for those materials gave up before finding what they needed. Armed with that knowledge, Villeneuve and her team focused on developing a core of fewer but better resources. Then, applying principles of behavioral

science, they designed a user interface that put no more than six items on a page, with no more than three clicks needed to get to any item. The results have been remarkable: Ten times more employees now engage with the materials on the company's core learning shelf.

Balance face-to-face and digital learning

CLOs should experiment to get the right mix of face-to-face and digital learning. Cargill, which until recently allocated 80% of its budget to in-person training and only 20% to digital training, is in the process of flipping that ratio around. Dervin and her team have redesigned the company's leadership-development programs to put some of the coursework online. Senior leaders initially had reservations about the effectiveness of digital instruction and worried about losing opportunities to network and build relationships. But those misgivings were short-lived. The first three cohorts who tried the online learning ended up enjoying the experience so much that they engaged in more training than was required. "What we're seeing," Dervin said, "is that this goes hand in glove with the pace and the rhythms of their day-to-day, and they're loving the flexibility it provides."

Deutsche Telekom, for its part, has developed a matrix to help determine whether a given offering might be better handled with face-to-face instruction, a purely digital approach, or a blend of the two. The matrix helps leaders weigh multiple factors: the type of content, the target audience, and

development and delivery considerations. (See the exhibit "Digital or face-to-face training?")

Digital or face-to-face training?

Deutsche Telekom considers a number of factors when deciding how best to present specific learning programs.

Format	Content	Target audience	Development and delivery considerations
Purely digital formats	Best suited for: • Hard skills • Mandatory training • Simple topics • Durable, reusable material	• Larger groups • Geographically dispersed or mobile employees, such as those in sales and field service	• More time required to produce nonstandard material • Higher up-front cost to produce nonstandard material • Lower cost to deliver per user • No need for trainers or videoconferencing facilities at the location
Face-to-face or blended formats	Best suited for: • Soft skills • Ad hoc training • Complex topics • Material that changes frequently	• Smaller groups • Geographically concentrated employees • Employees being onboarded	• Less time required to produce nonstandard material • Lower up-front cost for course preparation • Potential higher cost to deliver, but possibility of using existing staff as trainers • Need for training rooms or videoconferencing at the location

Source: Adapted from company documents

Rethink face-to-face learning

As engaging and effective as digital learning experiences can be, face-to-face learning is still important—although it may take new forms. Accenture employs some very sophisticated digital learning platforms and tools and has a vast library of online content, but Varma's experience is that digital learning goes only so far. "What we've found," he said, "is that there is no substitute for getting people together in cohorts that are cross-cultural and cross-functional." To achieve that without requiring

employees to be in the same physical space, Accenture has created more than 90 “connected classrooms” around the world. These enable the company to offer all employees some types of training—classes in design thinking, for example—that are taught by in-house experts in several different locations. “One facilitator could be in Bangalore, another could be in Manila, and another in Dalian, China,” Varma told us. People are still learning from people, but thanks to videoconferencing and other interactive technologies, along with more-collaborative approaches to learning, traditional geographic constraints no longer apply. Teams all over the world now coach one another and solve problems together. “That is how we do learning, every single day,” Varma said.

Some companies have pursued another approach for their face-to-face learning: They’ve created hands-on simulations in which participants must solve real-life problems. At UBS, employees take part in “three-dimensional case studies” in order to develop key capabilities, such as the ability to influence stakeholders or rethink a company product. The interactive case studies test not only their knowledge and intellectual skills but also how they engage with others and react as the situation unfolds. As Villeneuve told us, “They have to do it all together, and they get feedback on everything at the same time.”

Similarly, operational professionals at DBS spend three days in a simulation exercise that involves transforming a hypothetical old-school bank into a full-fledged digital bank. They work with

trainers and colleagues from other parts of the business to tackle staffing and resourcing issues and handle crisis situations unique to the digital world. An element of competition heightens the intensity and engagement.

Go beyond instruction

Transformer CLOs believe that instruction alone is not sufficient for meaningful learning. Accenture's Varma anchors his approach in what he calls the three I's: instruction, introspection, and immersion.

Instruction comes first, of course. But then trainees need to engage in reflection—the introspection part of Varma's three I's. This might involve giving employees time to privately mull over what they've learned, having them talk it over with a fellow trainee on a walk, or providing a formal opportunity during class to discuss it with a whole cohort.

After introspection comes immersion, or putting what's been learned into practice. The sooner and the more often that learning gets applied in real-life situations, the more likely it is to stick. After a time, individuals can return for more instruction.

Fidelity Investments includes all three elements of this model in a single learning experience for some of its customer-facing associates, according to Wendi Kennedy, the head of learning in the company's Personal Investing division. Trainees spend a few hours exploring digital content and experiential assignments on their own, discuss what they've learned with their colleagues, and then apply the learning in actual customer interactions

while the instructors can watch and help them adjust their actions. Gone are the days, Kennedy told us, when trainees spent eight straight hours in the classroom.

Cargill gets at the three I's in a slightly different order, moving from instruction to immersion to introspection, in what it calls its application challenge. In this model, employees are taught a concept or small lesson, which they apply immediately. They then fill out a field report describing how things went, what they learned, and what questions they have, or they present a sample work product, such as a new type of data model they learned to build, and solicit feedback from their cohort. The idea, Dervin told us, is to "design an experience and integrate it tightly with the work so it's relevant, using bite-sized content so that it's just what they need when they need it." Such "microlearning" is an increasingly important tool in today's learning arsenal.

Transforming Learning Departments

To make the trainer-to-transformer vision a reality, CLOs are redesigning their departments to be smaller, nimbler, and more strategic. Instead of simply taking requests and providing training for specific skills, they are teaming up with the leaders of other business units to dramatically improve capabilities, performance, and even culture throughout the organization.

To support this new approach, CLOs are hiring learning strategists, experience designers, curators, and software developers. They're helping employees become peer teachers,

guides, and coaches. And they're applying agile and lean start-up principles to their efforts to devise learning programs. At Fidelity, for example, Kennedy and her team take a minimum-viable-product approach that mirrors the method fast-moving companies use to create new products. They work with stakeholders to determine what learning is needed, come up with a basic learning module to address a particular need, get it out fast, gather feedback, and then repeat the process until the trainees who work with the material give it a sufficiently high Net Promoter Score (NPS).

As chief learning officers rethink how their departments operate, they should keep these recommendations in mind:

Act as curators and cocreators

Increasingly, transformer CLOs are identifying useful external content—everything from university courses to blog posts to YouTube videos—and combining it with internal content developed in consultation with the company's subject-matter experts. At Accenture, this approach allows the company to constantly provide its employees with the most current insights on emerging technologies, which they can then share with clients. As Varma told us, "We need to be able to train a group of people very quickly to understand what a technology is, how it will impact their specific industry, and how they will deliver innovation to their clients."

To provide high-quality, relevant learning at scale, Varma and his team created a framework and tools to help in-house subject-

matter experts develop their own learning boards (think Pinterest boards for different topics in the business). These then become easily accessible, on-demand learning modules. It's been a remarkably successful approach. As of early 2019, employees throughout the company had created more than 2,500 learning boards. They have become so popular, Varma said, that they're now "embedded in the fabric of how people learn."

Foster learning from peers

Accenture's learning boards show the appeal and usefulness of learning from colleagues as well as professional instructors. It's a practice that DBS Bank has adopted, too, going beyond its GANDALF Scholars program to launch Back to School, a series of employee-led training sessions. In multiple classrooms around the world, 45-minute sessions take place throughout the day for as long as a week. Classes cover technical subjects (such as DevOps and machine learning), business topics (for example, how the credit-card industry makes money), and "softer" subjects (such as personal branding and business storytelling). These courses are taught not by formal instructors but by internal subject-matter experts—managing directors, middle managers, and even new associates—whose range in seniority helps promote a culture in which expertise is valued over rank. The program is hugely popular: For a recent session on consumer banking, in which experts from the business side taught classes to employees from the technology side, and vice versa, all 1,700 seats were snapped up in just three hours.

Peer learning can arise anywhere in an organization, of course, not just within the formal learning department. Transformer CLOs pay attention to this. When new learning activities spring up, they investigate what's happening and why. If the new effort has merit, they figure out how to support and amplify it. That's what happened at Deutsche Telekom after an employee in one part of the business made use of the company intranet to start a forum called From Experts, For Experts. According to Stephan Kasulke, the company's CLO, the program went viral: Not long after its launch, more than 1,000 people were participating. "It was a totally bottom-up, self-developed thing," Kasulke said. Recognizing the program's value, he and his team got involved. "We took some key people who had organized it and said, 'OK, what can we do to help you become even bigger and more effective?' They came up with some technical things for sharing, and we are now supporting the program."

Measure impact

Determining the impact of training can be difficult. The key is to consider multiple measures of how learning contributes to the organization's overall strategy.

Telstra, the Australian telecom giant, adopted this approach for assessing its most strategically important technical and leadership programs. To judge how well it was training a large group of engineers who worked in software-defined networking, the company had both the engineers and their leaders assess their abilities. The learning department added that data to an

analysis of the engineers' various certifications and accreditations and then worked with an external vendor to develop an 80-question test targeting relevant areas of technical expertise. All that information was then folded together to arrive at a durable and meaningful measurement of proficiency.

In some cases, measuring the business outcomes that result from training is also possible—and important. The type of measurement will depend on a person's job function or role. For example, companies can look at sales results and end-customer NPS for employees who own client accounts; cycle time and defect rates for operations staff; and productivity and customer satisfaction for software developers. For roles where output is tougher to measure, most CLOs rely on subjective assessments from the individuals and their managers—often some type of 360-degree evaluation.

Although companies have only recently begun to tie learning experiences to employee performance in most occupations, transformer CLOs are making this an important element of their strategy. That's what Fidelity is doing by making same-day determinations about whether workers who go through training do a better job of handling customer calls afterward, and it's what GE Digital is doing by tracking which courses are associated with capability improvements in salaried staff from year to year.

Companies are also starting to build tools that tailor learning plans to individuals. While some firms address employees' learning needs as part of the annual review process, others are

trying to give workers advice whenever they want it. GE Digital, for example, offers a tool to help employees understand what potential next jobs might fit their backgrounds and what additional capabilities they would need in order to qualify. Boeing is developing an artificial-intelligence engine to customize instruction for individuals in real time. According to Mark Cousino, the company's director of learning strategy, design, and technology, the tool will assess a person's cognitive load during training and fine-tune the experience to optimize it for that individual.

The fast-changing nature of business today requires organizations in every industry to constantly enhance their capabilities. This presents an opportunity for CLOs to take on a more proactive and strategic role than ever before—to be transformers, not just trainers. Transformer CLOs are positioning employees to succeed in their current jobs and adapt to future changes. They're making learning and development an integral part of their companies' strategic agendas. It's a profound and important shift. "Learning is no longer just an HR function," said Standard Chartered's Clark. "It's a core part of your business."

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The Right Mindset for Success

An interview with Carol Dweck by Sarah Green Carmichael

Editor's Note: *The transcript of this audio interview (originally published on January 12, 2012) has been lightly edited for clarity.*

We spoke with Carol Dweck, *Stanford professor and author of* Mindset: The New Psychology of Success. *We talked about why some people reach their potential while other people who are just as talented do not, digging into the science of persistence and praise.*

HBR: ***Your research has shown that many of the talented people who find success have a growth mindset. What is a growth mindset?***

Dweck: Let me start with a *fixed mindset*. A fixed mindset is when people believe their basic qualities—their intelligence, their talents, their abilities—are just fixed traits. They have a certain amount, and that's that. But other people have a *growth mindset*. They believe that even basic talents and abilities can

be developed over time through experience, mentorship, and so on. These are the people who go for it. They're not always worried about how smart they are, how they'll look, what a mistake will mean. They challenge themselves and grow.

I think we've all experienced the strange sensation of, say, going back to your high school reunion and seeing the person you thought was going to be the next president of the United States, and their career just hasn't panned out. You never intend to be that person. You never intend to be the person who has the fixed mindset. How does someone fall into that trap?

That's a great example because you think, "Oh, this person is the most likely to succeed." They've gotten the A's. They're president of the student body. But because of their success, they may have fallen into a fixed mindset. They may have believed all the hype, the idea that they just have it. And they become afraid of making mistakes. They become afraid of tarnishing their image.

And because they are fearful of venturing out of their comfort zone, they don't take risks or develop the abilities they're capable of. Let's go back to the same reunion: You may also see people you thought were not likely to succeed, and they've really done amazing things. These people maybe didn't have an image to uphold, didn't feel the weight of other people's expectations, and just followed their passions and developed their abilities.

Is this a conundrum that we can get into at any time? If you become CEO of a company, say, at 45 or 55, can you suddenly find yourself falling into this trap?

It is possible. Many people have told me that when they were promoted into a prestigious position, they suddenly felt, "Now I have to have all the answers. Now, my period of growth is over. I have to be a fully mature person who knows everything." So yes, at any point, you can fall into the fixed-mindset trap. People who become CEOs suddenly feel they have to be gods or goddesses, and not people who say, "Gee, I don't know. Let's talk about it. Let's think about it. Let's feel our way through this problem."

How can we go about making sure that we stay in a growth mindset or we encourage a growth mindset if we recognize that that's not where we're most comfortable?

We have to keep in mind the hallmarks of a growth mindset. In a growth mindset, challenges are exciting rather than threatening. So rather than thinking, "Oh, I'm going to reveal my weaknesses," you say, "Wow, here's a chance to grow." If you find yourself afraid of challenges, get yourself into a growth mindset and think about all of the growth potential in this opportunity, even if it's out of your comfort zone.

If you react to a setback defensively, wanting to hide it, wanting to make up excuses for it, you're in a fixed mindset. When you find yourself here, ask, "What can I learn from this

experience that can help me go forward?" In a fixed mindset, you're so focused on the outcome: "Will I look good? Will I live up to my reputation? Will people think I'm brilliant?"

In a growth mindset, you're focused on the process: the process you engaged in to bring about success and the processes you engaged in that may have created your failures, which you can learn from and then do better the next time. So every time you feel yourself sinking into fixed-mindset thinking—worrying about a challenge, feeling measured by a setback, worrying about the outcome rather than the process—try to flip yourself over into more growth-mindset thinking.

What if you're trying to encourage a growth mindset in someone who's reporting to you? Because I'd imagine, for instance, a lot of managers would like to have the straight-A student, someone who can be hired and get right to work. And I think it can be baffling when someone that talented doesn't perform up to standard. If you want to push someone who's really talented into a growth mindset, how would you proceed?

A lot of companies hire people with great pedigrees. But as Jack Welch once said, these pedigrees don't tell you about passion and the drive to get things done. So what message should a manager or leader give to new recruits that would put them into more of a growth mindset?

First, I think the message from the top is really important: that we value passion, dedication, growth, and learning, not

genius.

Second, we don't expect that you've arrived here fully formed. We expect that you've arrived here ready to learn. Third, we expect you to stretch beyond your comfort zone and take reasonable risks, not to do the same thing you're good at over and over and stay in your comfort zone. Fourth, we value process here, and we reward process. We reward taking on big but reasonable challenges. We reward pursuing those challenges doggedly. We reward teamwork. And even if a project has not reached fruition or become successful, we reward you when you've engaged in a wholehearted and smart way.

Companies that are thriving now are the ones that give this message. And also, my research has shown—contrary to popular opinion—you don't praise talent. You don't praise ability. You praise process.

Can you talk a little more about that? That's a piece of research that has changed the way my friends who are parents praise their kids, and I think it's fascinating.

We've done a lot of work now showing that praising someone's talent puts them into a fixed mindset. The whole self-esteem movement taught us erroneously that praising intelligence, talent, and abilities would foster self-confidence, self-esteem … and everything great would follow. But we've found this kind of praise backfires. People who are praised for

their talent worry about doing the next thing, about taking on the hard task and not looking talented, tarnishing their reputation for brilliance. Instead of taking risks, they stick to their comfort zone and get really defensive when they hit setbacks.

What should we praise? The effort, the strategies, the doggedness and persistence, the grit people show, the resilience that they show in the face of obstacles, bouncing back when things go wrong, and knowing what to try next. I think a huge part of promoting a growth mindset in the workplace is to convey the value of process, of feedback, of rewarding people for engaging in the process and not just achieving a successful outcome.

I want to ask you about the flip side of that, about giving negative feedback. I think we've all been in situations at work where we've worked on something but the project has come up short. It's not good enough. And I think, in those situations, there's a natural tendency to say, "We worked really hard on this!" And then, usually management comes back with, "Well, that doesn't matter. The product isn't good enough." What's a better way to have that kind of interaction?

I think that kind of conversation can be critical. And I think the person who's giving the feedback needs to focus on process but not just the effort. Everyone's putting in—or believes they're putting in—a lot of effort. How have they engaged in

the process as a team, what strategies have they tried, how have they gauged when and whether those strategies were successful, have they been sensitive enough to change strategies when they were starting to get negative feedback? What's important is how they went forward, how they corrected themselves, and why it might not have worked in the end and what they might do differently next time.

One CEO I talked to recently said he rewards that value added: being able to put knowledge and skills back into the company, even when a project itself has not been successful.

Can you say more about what you mean by "putting it back into the company"?

In other words, what did a team or a person learn from an effort even when it wasn't successful? Many successful people—Einstein, Thomas Edison—have said that they learned more from their failures than from their successes. Many huge breakthroughs came after a number of huge failures that provided learning experiences. You're not going to reward someone just because they failed, obviously not. But what did the journey teach them that will help them and others in the company become successful the next time?

Ideally, as people are engaging in a process, in a project, they're monitoring what worked and what didn't with an eye toward the future. And the more they can feed that back into

the company to make it more of a communal learning experience, the more that is reward-worthy.

A lot of your research has focused on students and how they respond to praise in academic settings. How do you think our education system could better produce people who are persistent, creative, and innovative and lifelong, risk-taking learners?

We've always produced creative people, the mavericks. And I'm worried now, with the emphasis on high-stakes testing and doing well on the test or getting perfect scores, that we are subverting what we've always been good at. I think the message has to go out in the education system that the name of the game is *learning*.

We actually have a program for students that teaches them that they're in charge of their brains, that their brain is like a muscle that grows stronger with use, and that every time they stretch themselves to learn something new, their brains form new connections and they get smarter. We want to empower students to be motivated to grow their brains, and that's done by stretching, by being passionate about something, by learning new things, by welcoming things that are hard, by seeing a period of confusion as a period that's going to create new neurons.

The more our classrooms are organized around stretching, and growing, and being comfortable with confusion and

setbacks, the more we are going to create growth-mindset students and growth-mindset leaders.

I think that to be comfortable with confusion takes a certain amount of boldness, not just from the person who's learning but from the manager as well. As a leader, you have to be OK with your people being confused.

Yes, and you have to be OK with being confused yourself, because teachers and managers need growth mindsets not just about their students or employees but also for themselves. Teachers and leaders, they are learners. They're the ones who are leading us in learning and should be modeling being confused, being uncomfortable, being out of their comfort zone, knowing how to go get information or create teams that'll move us out of a period of confusion into clarity. So they need growth mindsets about their own skills, their own talents, their own abilities over time.

This is a time of tremendous change, where, like it or not, you're going to have periods of confusion. Like it or not, you're going to turn into a novice over and over again. And we need to be comfortable with struggle—not just effort, but struggle—and confusion.

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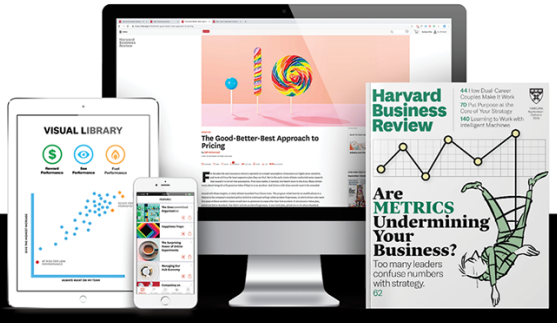

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